



# MMWR<sup>TM</sup>

## Morbidity and Mortality Weekly Report

Weekly

May 18, 2007 / Vol. 56 / No. 19

### National Stroke Awareness Month — May 2007

May is National Stroke Awareness Month. During 2007, an estimated 700,000 persons in the United States will have a stroke, and approximately 160,000 will die from stroke (1). Stroke is a leading cause of serious long-term disability, with estimated direct and indirect costs totaling \$62.7 billion (1).

Preventing and controlling stroke risk factors (e.g., high blood pressure, heart disease, atrial fibrillation, high blood cholesterol levels, diabetes, tobacco use, alcohol use, physical inactivity, and obesity) are the most important steps in reducing a person's risk for having a stroke (2). Recognizing the warning signs of stroke and immediately calling for emergency medical care are critical to preventing death and disability in persons having a stroke.

CDC supports programs in 32 states and the District of Columbia that emphasize multiple strategies for targeting stroke and its risk factors in various settings and for ensuring that patients receive quality care. CDC funds four state-based stroke registries in the Paul Coverdell National Acute Stroke Registry. The long-term goal of this program is to ensure that all persons in the United States receive the highest quality acute stroke care that is available to reduce untimely deaths, prevent disability, and avoid recurrent strokes. Additional information about this program and information about stroke warning signs, prevention, and care is available at <http://www.cdc.gov/stroke>, <http://www.strokeassociation.org>, <http://www.stroke.org>, and <http://www.ninds.nih.gov>.

#### References

1. American Heart Association. Heart disease and stroke statistics—2007 update. Dallas, TX: American Heart Association; 2007. Available at <http://www.americanheart.org>.
2. Goldstein LB, Adams R, Alberts MJ, et al. Primary prevention of ischemic stroke. *Stroke* 2006;37:1583–634.

### Prevalence of Stroke — United States, 2005

Stroke is the third most common cause of death in the United States (1). Stroke also results in substantial health-care expenditures; the mean lifetime cost resulting from an ischemic stroke is estimated at \$140,000 per patient (1). Nationwide, costs related to stroke are expected to reach an estimated \$62.7 billion in 2007 (1). Stroke death rates are higher in the southeastern United States, compared with other regions of the country; blacks, American Indians/Alaska Natives (AI/ANs), Asians/Pacific Islanders, and Hispanics die from stroke at younger ages than whites (1–3). Regional and national data on self-reported stroke prevalence have been published previously (1,4); however, state-specific prevalence data for persons with a history of stroke have not. To provide national-level stroke prevalence estimates by age group, sex, race/ethnicity, and education level and overall prevalence estimates for each of the 50 states, the U.S. Virgin Islands (USVI), the District of Columbia (DC), and Puerto Rico, CDC analyzed data from the 2005 Behavioral Risk Factor Surveillance System (BRFSS) survey. This report summarizes the results of that analysis and provides the first state-based prevalence estimates of stroke. The results indicated that, in 2005, substantial differences existed in the prevalence of stroke by state/territory, race/ethnicity, age group, and education level. To lower the incidence of stroke and meet the *Healthy People 2010* objective\* to reduce stroke deaths (objective no. 12-7) and the overall

\* Additional information available at <http://www.cdc.gov/dhdsplibrary/hp2010/index.htm>.

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The MMWR series of publications is published by the Coordinating Center for Health Information and Service, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

**Suggested Citation:** Centers for Disease Control and Prevention. [Article title]. MMWR 2007;56:[inclusive page numbers].

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goal to eliminate health disparities, public health programs should augment stroke risk-factor prevention and educational measures in disproportionately affected regions and populations.

BRFSS is a state-based, random-digit-dialed telephone survey of the noninstitutionalized, U.S. civilian population aged  $\geq 18$  years and is administered by state health departments in collaboration with CDC. In 2005, the median response rate among states, based on Council of American Survey and Research Organizations guidelines, was 51.1% (range: 34.6%–67.4%). This rate accounts for the efficiency of the telephone sampling method used and participation rates among eligible respondents who were contacted. A total of 356,112 respondents from all 50 states, DC, Puerto Rico, and USVI participated in the survey. State (including DC) and territory sample sizes ranged from 2,422 (USVI) to 23,302 (Washington). The racial/ethnic national sample sizes ranged from 5,535 (AI/ANs) to 279,419 (whites). All prevalence estimates in this report have a numerator  $> 50$  and a relative standard error  $< 30\%$  to ensure that estimates are stable.<sup>†</sup>

Survey respondents answered the question, "Has a doctor or other health professional ever told you that you had a stroke?" Differences in prevalence were assessed by age group, sex, race/ethnicity, education level, and state or territory of residence. Data were weighted to reflect the population aged  $\geq 18$  years in each state and territory and were age adjusted to the 2000 U.S. standard population to allow for more meaningful comparisons between states and between demographic groups. The weighted state prevalence values were used to estimate the number of persons with a history of stroke in various demographic groups and in each state or territory. Respondents provided racial/ethnic identification; those who identified themselves as multiracial were included in a separate category.

In 2005, 2.6% (95% confidence interval [CI] = 2.5–2.7) of noninstitutionalized U.S. adults (approximately 5,839,000 persons) had a history of stroke (Table 1). The prevalence of stroke increased with age: 8.1% of respondents aged  $\geq 65$  years reported a history of stroke, compared with 0.8% of persons aged 18–44 years. The prevalence of stroke among men (2.7%) and women (2.5%) was similar. Among persons with less than 12 years of education, 4.4% reported a history of stroke, approximately twice the proportion among college graduates (1.8%).

The overall prevalences of stroke among AI/ANs (6.0%), multiracial persons (4.6%), and blacks (4.0%) were higher

<sup>†</sup> Information regarding BRFSS data and methods available at [http://www.cdc.gov/brfss/technical\\_infodata/surveydata/2005.htm](http://www.cdc.gov/brfss/technical_infodata/surveydata/2005.htm).

**TABLE 1. Percentage of respondents aged  $\geq 18$  years who reported a history of stroke, by selected characteristics — Behavioral Risk Factor Surveillance System, United States, 2005**

Characteristic	Total no. of respondents*	Prevalence of stroke (%)†	(95% CI)‡	Estimated no. of U.S. residents with a history of stroke
<b>Age group (yrs)</b>				
18–44	128,328	(0.8)	(0.7–0.9)	852,000
45–64	137,738	(2.7)	(2.5–2.9)	1,926,000
$\geq 65$	87,351	(8.1)	(7.7–8.5)	3,036,000
<b>Sex¶</b>				
Men	136,201	(2.7)	(2.5–2.8)	2,694,000
Women	219,911	(2.5)	(2.4–2.7)	3,145,000
<b>Race/Ethnicity¶</b>				
White, non-Hispanic	279,419	(2.3)	(2.3–2.4)	4,017,000
Black, non-Hispanic	27,925	(4.0)	(3.6–4.5)	772,000
Asian/Pacific Islander	5,974	(1.6)**	(1.0–2.7)	60,000
Hispanic††	25,539	(2.6)	(2.1–3.3)	616,000
American Indian/Alaska Native	5,535	(6.0)	(4.5–7.8)	126,000
Multiracial	6,519	(4.6)	(3.7–5.6)	136,000
<b>Education¶</b>				
Less than 12 years	38,202	(4.4)	(4.0–4.9)	1,365,000
High school graduate	109,830	(2.6)	(2.5–2.8)	1,863,000
Some college	93,228	(2.7)	(2.5–2.9)	1,474,000
College graduate	113,944	(1.8)	(1.6–1.9)	1,108,000
<b>Total</b>	<b>356,112</b>	<b>(2.6)</b>	<b>(2.5–2.7)</b>	<b>5,839,000</b>

\* The sums of the sample sizes in each category might not add up to the total number of respondents because of unknown or missing information.

† Weighted percentage of respondents who reported a history of stroke.

‡ Confidence interval.

¶ Weighted percentages are age adjusted to the 2000 U.S. standard population.

\*\* The relative standard error of this estimate is 20%–30% and should be interpreted with caution.

†† Might be of any race.

than the prevalence among whites (2.3%). The prevalences of stroke among Asians/Pacific Islanders (1.6%) and Hispanics (2.6%) were similar to the prevalence among whites.

The prevalence of stroke ranged from 1.5% in Connecticut to 4.3% in Mississippi (Table 2). States and territories with the highest prevalence of stroke had approximately twice the prevalence of those with the lowest (Figure). Wyoming, with an estimated state population of 509,000 in 2005, had the lowest estimated number of persons reporting a history of stroke (10,000); California, with an estimated population of approximately 36 million in 2005, had the highest (641,000).

**Reported by:** JR Neyer, KJ Greenlund, PhD, CH Denny, PhD, NL Keenan, PhD, M Casper, PhD, DR Labarthe, MD, PhD, JB Croft, PhD, Div for Heart Disease and Stroke Prevention, National Center for Chronic Disease Prevention and Health Promotion, CDC.

**Editorial Note:** This report provides the first state-based estimates of the prevalence of persons with a history of stroke in the United States. The results indicate that, in 2005, substantial differences existed in the prevalence of stroke by race/ethnicity, education level, and state/area of residence. The results also exhibit variation among states, with an approximately twofold difference between states with the highest and lowest prevalence estimates. The overall prevalence estimate of 2.6% and race/ethnicity-specific estimates in this report

are comparable to previously published national stroke prevalence data (1). In addition, the finding that many states with high prevalence estimates are concentrated in the southeast corresponds to the high rates of stroke mortality observed in this region, which has been traditionally called the “stroke belt” (2). However, certain states (Illinois, Michigan, Missouri, Nevada, Texas, and West Virginia) in other U.S. regions also had prevalence estimates  $\geq 3.0\%$ , among the highest in the country.

Two factors contribute to stroke prevalence: stroke incidence (i.e., new cases) and survival rates after cerebrovascular events. Data on stroke incidence and long-term survival are limited (5); thus, assessing the relative contribution of these two factors is difficult. Improved surveillance for stroke, including data to determine incidence, survival, and type of stroke, would be useful to better understand the causes of the disparities described in this report (5).

Several studies have hypothesized that the geographic and racial/ethnic variation in stroke prevalence and mortality might be attributed to variation in the amounts of trace elements in the environment, inconsistencies in the accuracy of stroke vital statistics data, migration patterns, and differences in the prevalence of stroke risk factors (2,6,7). A simple explanation for the observed variations remains elusive; however, one likely

**TABLE 2. Percentage of respondents aged  $\geq 18$  years who reported a history of stroke, by state/area — Behavioral Risk Factor Surveillance System, United States, 2005**

State/Area	Total no. of respondents	Weighted, age-adjusted prevalence of stroke (%) <sup>a</sup>	(95% CI) <sup>†</sup>	Estimated no. of residents with a history of stroke <sup>§</sup>
Alabama	3,197	(3.2)	(2.7–3.9)	117,000
Alaska	2,813	(2.5)	(1.7–3.5)	8,000
Arizona	4,710	(2.1)	(1.6–2.6)	88,000
Arkansas	5,280	(3.0)	(2.5–3.4)	63,000
California	6,134	(2.6)	(2.1–3.2)	641,000
Colorado	5,979	(1.7)	(1.4–2.0)	49,000
Connecticut	5,254	(1.5)	(1.2–1.9)	45,000
Delaware	4,192	(2.6)	(2.1–3.3)	17,000
District of Columbia	3,743	(3.4)	(2.7–4.2)	14,000
Florida	8,190	(2.8)	(2.4–3.3)	432,000
Georgia	6,064	(2.9)	(2.4–3.4)	164,000
Hawaii	6,416	(2.8)	(2.3–3.4)	28,000
Idaho	5,734	(2.4)	(2.0–2.9)	24,000
Illinois	5,077	(3.0)	(2.3–3.8)	278,000
Indiana	5,635	(2.5)	(2.1–3.0)	119,000
Iowa	5,051	(2.6)	(2.2–3.1)	67,000
Kansas	8,626	(2.3)	(2.0–2.6)	49,000
Kentucky	6,628	(3.1)	(2.7–3.7)	102,000
Louisiana	2,936	(3.3)	(2.6–4.0)	91,000
Maine	3,960	(2.4)	(2.0–2.9)	27,000
Maryland	8,632	(2.1)	(1.8–2.5)	89,000
Massachusetts	8,906	(2.1)	(1.8–2.6)	111,000
Michigan	12,136	(3.0)	(2.6–3.3)	225,000
Minnesota	2,829	(1.7)	(1.3–2.2)	65,000
Mississippi	4,439	(4.3)	(3.6–5.0)	91,000
Missouri	5,164	(3.1)	(2.7–3.7)	147,000
Montana	4,983	(2.1)	(1.7–2.5)	16,000
Nebraska	8,332	(2.2)	(1.9–2.6)	31,000
Nevada	3,161	(3.2)	(2.3–4.4)	51,000
New Hampshire	6,038	(2.6)	(2.2–3.1)	26,000
New Jersey	13,663	(2.1)	(1.8–2.4)	146,000
New Mexico	5,585	(2.2)	(1.8–2.6)	31,000
New York	7,796	(2.4)	(1.9–3.0)	365,000
North Carolina	17,261	(2.8)	(2.5–3.0)	179,000
North Dakota	4,010	(1.8)	(1.5–2.2)	10,000
Ohio	7,498	(2.3)	(1.9–2.7)	207,000
Oklahoma	13,707	(3.4)	(3.0–3.8)	95,000
Oregon	12,015	(2.5)	(2.2–2.8)	72,000
Pennsylvania	13,378	(2.2)	(1.9–2.5)	237,000
Rhode Island	3,976	(2.1)	(1.7–2.6)	19,000
South Carolina	8,440	(2.9)	(2.6–3.3)	96,000
South Dakota	6,915	(2.6)	(2.2–3.0)	16,000
Tennessee	4,749	(3.1)	(2.6–3.7)	142,000
Texas	6,512	(3.0)	(2.6–3.4)	455,000
Utah	5,137	(2.6)	(2.1–3.1)	34,000
Vermont	6,763	(2.1)	(1.8–2.5)	11,000
Virginia	5,493	(2.7)	(2.2–3.2)	146,000
Washington	23,302	(2.4)	(2.2–2.6)	108,000
West Virginia	3,553	(3.0)	(2.5–3.6)	48,000
Wisconsin	4,900	(1.9)	(1.5–2.4)	81,000
Wyoming	5,009	(1.9)	(1.5–2.3)	7,000
Puerto Rico	3,789	(1.9)	(1.5–2.4)	54,000
U.S. Virgin Islands	2,422	— <sup>¶</sup>	—	—
<b>Total</b>	<b>356,112</b>	<b>(2.6)</b>	<b>(2.5–2.7)</b>	<b>5,839,000</b>

<sup>a</sup> Weighted percentages are age standardized to the 2000 U.S. standard population.

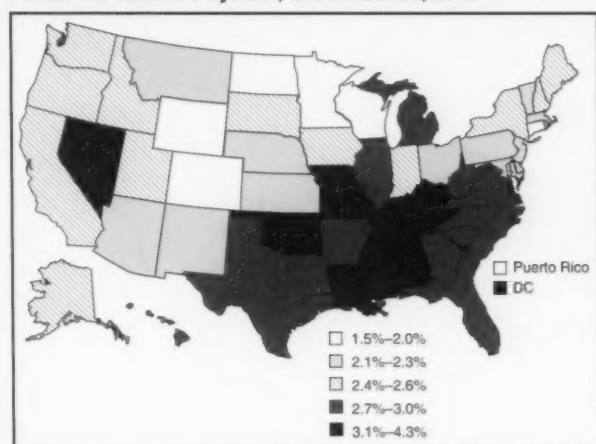
<sup>†</sup> Confidence interval.

<sup>§</sup> Estimated number of persons in each state/area with a history of stroke (rounded to the nearest thousand), based on 2000 U.S. standard population.

<sup>¶</sup> Data omitted because they have a relative standard error  $>30\%$  or a numerator of  $<50$  respondents.



**FIGURE. Percentage of respondents aged  $\geq 18$  years who reported a history of stroke, by state/area — Behavioral Risk Factor Surveillance System, United States, 2005\***



\* Age adjusted to the 2000 U.S. standard population of adults.

explanation for the geographic variation in stroke prevalence described in this report is variation in the proportion of the population with risk factors for stroke and heart disease. In a 2003 BRFSS analysis, the prevalence of having two or more of the major, modifiable risk factors for stroke and heart disease (e.g., high blood pressure, high blood cholesterol levels, diabetes, current smoking, physical inactivity, or obesity) was above the median value of 36.0% in 18 of the 19 states/areas with the highest stroke prevalence estimates in this 2005 analysis (6). Reasons for the geographic variation in the prevalence of risk factors for stroke are complex and might be attributed to a combination of factors (e.g., cultural norms for diet and exercise, poverty and lack of economic opportunity, social isolation, and regional differences in access to health care and preventive services) (2). The geographic distribution of racial/ethnic groups alone does not account for the geographic variation in stroke mortality (2). To further define and explain the underlying causes of these differences, additional studies are needed, including small-area analyses, in-depth interviews, more precise prevalence estimates by race/ethnicity, quality-of-care assessments, and recorded health outcomes. One such study that is under way is the Reasons for Geographic and Racial Differences in Stroke Study (REGARDS), a national population-based, longitudinal study designed to determine the causes of excess mortality in the southeast United States and among blacks (7).

As with the geographic variations in stroke prevalence, the disparities observed among racial/ethnic groups are likely attributed, in part, to differences in the proportion of these population groups with risk factors for stroke. For example,

in a recent analysis, AI/AN men had a higher prevalence of hypertension and hypercholesterolemia than any other racial/ethnic group, and AI/AN men and women had the highest prevalence of obesity, current smoking, and diabetes (8). However, the AI/AN group is diverse, and national-level data on stroke incidence, prevalence, and mortality for AI/ANs are limited (3). Similarly, blacks have a much higher prevalence of hypertension and diabetes and are less likely to have blood pressure controlled or diabetes treated than whites (1). Risk factor information for the multiracial group is limited because the multiracial category has only recently been included in large, population-based analyses.

The findings in this report are subject to at least four limitations. First, BRFSS data are based on self-reported information and are subject to recall bias and misinterpretation of the term "stroke." Differential recall of stroke or ability to report a history of stroke by telephone interview could affect the disease prevalence estimates. Despite this limitation, self-reported disease history is used routinely to provide stroke prevalence estimates (1,3,4). Second, BRFSS does not include persons living in nursing homes, prisons, military bases, or other institutions, populations whose inclusion might alter stroke prevalence estimates for the entire population. Third, BRFSS is limited to households with land-line telephones and does not include persons who do not have telephones or who use cellular telephones exclusively. Finally, the BRFSS response rate was low; however, the prevalence estimates are accurate when compared with other surveys and other modes of survey administration (e.g., in-person interviews) (9).

CDC has formed local, state, national, and international partnerships to help control risk factors in susceptible populations, reduce the incidence of stroke, and achieve the nation's *Healthy People 2010* health objectives. For example, the National Forum for Heart Disease and Stroke Prevention, which comprises nearly 80 organizations, is working toward implementing A Public Health Action Plan to Prevent Heart Disease and Stroke.<sup>§</sup> In addition, the CDC State Heart Disease and Stroke Prevention Program funds health departments in 32 states and DC to support stroke prevention through education, strategies to change physical and social environments, and programs to help eliminate racial/ethnic disparities in stroke risk. CDC also funds 15 WISEWOMAN projects, which aim to prevent heart disease and stroke by providing low-income, underinsured, and uninsured women aged 40–64 years with opportunities for lifestyle interventions, referral services, and screening for chronic disease risk factors;

<sup>§</sup>Additional information available at [http://www.cdc.gov/dhdsplibrary/action\\_plan/index.htm](http://www.cdc.gov/dhdsplibrary/action_plan/index.htm).

approximately 12,000 women have received services through WISEWOMAN during the past 4 years. Since 2000, WISEWOMAN has identified approximately 5,783 cases of previously undiagnosed hypertension, 6,286 cases of undiagnosed high cholesterol, and 800 cases of undiagnosed diabetes.<sup>†</sup>

Since 1999, REACH 2010, a program funded by the U.S. Department of Health and Human Services, has supported several community-based projects that target racial/ethnic groups disproportionately affected by certain diseases. For example, the Choctaw Nation Project in Oklahoma and the Chugachmiut Native Organization in Alaska were both developed to address the burden of heart disease and stroke among AI/ANs. In Louisiana, the Black Women's Health Imperative has provided access to clinical preventive services for nearly 4,000 persons and improved the recognition of risk factors for heart disease and stroke in the communities it serves.<sup>\*\*</sup>

The findings in this report indicate that, in 2005, the prevalence of stroke varied by education level, race/ethnicity, and state/territory. These data can help health planners (e.g., policy makers and public health officials) better target prevention resources to groups with disproportionately high stroke prevalence. The importance of preventing and controlling risk factors (e.g., high blood pressure, heart disease, atrial fibrillation, high blood cholesterol levels, diabetes, tobacco use, alcohol use, physical inactivity, and obesity) to reduce the risk for stroke is well-established (10). In communities, policies that reduce tobacco exposure and promote healthy living (e.g., better access to healthy foods, school and worksite health education, and environments that are safe for and conducive to physical activity) can contribute to the prevention of stroke and other cardiovascular diseases. Finally, measures that improve recognition of the early signs of stroke and timely access to emergency stroke care can minimize the effects of strokes.

#### Acknowledgment

The findings in this report are based on data provided by BRFSS state coordinators.

#### References

1. Rosamond W, Flegal K, Friday G, et al. Heart disease and stroke statistics—2007 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* 2007;115:e69–e171.
2. Casper ML, Barnett E, Williams GI Jr., Braham VE, Greenlund KJ. Atlas of stroke mortality: racial, ethnic, and geographic disparities in the United States. Atlanta, GA: US Department of Health and Human Services, CDC; January 2003. Available at <http://www.cdc.gov/dhdp/library/maps/strokeatlas/index.htm>.
3. Stansbury JP, Jia H, Williams LS, Vogel WB, Duncan PW. Ethnic disparities in stroke: epidemiology, acute care, and postacute outcomes. *Stroke* 2005;36:374–87.
4. CDC. Regional and racial differences in the prevalence of stroke—23 states and District of Columbia, 2003. *MMWR* 2005;54:481–4.
5. Goff DC, Brass L, Braun LT, et al. Essential features of a surveillance system to support the prevention and management of heart disease and stroke: a scientific statement from the American Heart Association Councils on Epidemiology and Prevention, Stroke, and Cardiovascular Nursing and the Interdisciplinary Working Groups on Quality of Care and Outcomes Research and Atherosclerotic Peripheral Vascular Disease. *Circulation* 2007;115:127–55.
6. CDC. Racial/ethnic and socioeconomic disparities in multiple risk factors for heart disease and stroke. *MMWR* 2005;54:113–7.
7. Howard VJ, Cushman M, Pulley L, et al. The reasons for geographic and racial differences in stroke study: objectives and design. *Neuroepidemiology* 2005;25:135–43.
8. CDC. Health status of American Indians compared with other racial/ethnic minority populations—selected states, 2001–2002. *MMWR* 2003;52:1148–52.
9. Nelson DE, Holtzman DJ, Bolen JC, Stanwyck CA, Mack KA. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Soz Praventivmed* 2001;46(Suppl 1):S3–S42.
10. Goldstein LB, Adams R, Alberts MJ, et al. Primary prevention of ischemic stroke. *Stroke* 2006;37:1583–634.

## Prehospital and Hospital Delays After Stroke Onset — United States, 2005–2006

Each year approximately 700,000 persons in the United States have a new or recurrent stroke; of these persons, 15%–30% become permanently disabled, and 20% require institutionalization during the first 3 months after the stroke (1). The severity of stroke-related disability can be reduced if timely and appropriate treatment is received (2). Patients with ischemic stroke may be eligible for treatment with intravenous thrombolytic (i.e., tissue plasminogen activator [t-PA]) therapy within 3 hours of symptom onset (3). Receipt of this treatment usually requires patients to recognize stroke symptoms and receive prompt transport to a hospital emergency department (ED), where timely evaluation and brain imaging (i.e., computed tomography or magnetic resonance imaging) can take place. For patients eligible for t-PA, evidence suggests that the earlier patients are treated after the onset of symptoms the greater the likelihood of a more favorable outcome (4). In 2001, Congress established the Paul Coverdell National Acute Stroke Registry to measure and track the quality of care provided to acute stroke patients (5). To assess prehospital delays from onset of stroke symptoms to ED arrival and hospital delays from ED arrival to receipt of brain imaging, CDC analyzed data from the four states participating in the national stroke registry. The results of that analysis

<sup>†</sup> Additional information available at <http://www.cdc.gov/dhdp/wisewoman.htm>.

<sup>\*\*</sup> Additional information about these and other programs available at <http://www.cdc.gov/reach2010> and <http://www.cdc.gov/dhdp>.

indicated that fewer than half (48.0%) of stroke patients for whom onset data were available arrived at the ED within 2 hours of symptom onset, and prehospital delays were shorter for persons transported to the ED by ambulance (i.e., emergency medical services) than for persons who did not receive ambulance transport. The interval between ED arrival and brain imaging also was significantly reduced for those arriving by ambulance. More extensive public education is needed regarding early recognition of stroke and the urgency of telephoning 9-1-1 to receive ambulance transport. Shortening prehospital and hospital delays will increase the proportion of ischemic stroke patients who are eligible to receive t-PA therapy and reduce their risk for severe disability from stroke.

Data from the Paul Coverdell National Acute Stroke Registry were analyzed from the 142 hospitals participating in the four registry states (Georgia, Illinois, Massachusetts, and North Carolina). Hospital participation is voluntary, and each state has devised a process to select representative hospitals. Participating hospitals must collect data on all stroke patients admitted to the hospital during a collection period of at least 6 months of the year. Time of stroke symptom onset is based on patient and bystander information and is recorded in the registry. During January 1, 2005–September 30, 2006, these 142 hospitals collected data on 23,249 patients who experienced stroke or exhibited transient ischemic attack signs or symptoms defined by *International Classification of Diseases, Ninth Revision, Clinical Modification* discharge diagnosis codes 430–436. Excluded were patients who were institutionalized, resided in nursing homes, experienced strokes in the hospital, were not admitted to the hospital through its ED, or were hospital transfers, resulting in 17,643 patients for analysis.

For this analysis, two temporal measures were used to reflect transport and brain imaging delays. Both are standard process measures used by the Coverdell registry. To reflect delays in transport, the proportion of patients who arrived at the ED within 2 hours of symptom onset was used. To reflect delays in imaging, the proportion of patients who received imaging within 1 hour of arrival in the ED among patients who arrived at the ED within 2 hours of symptom onset was used. These measures are derived from the 3-hour clinical window after symptom onset within which patients with ischemic stroke may be eligible for intravenous t-PA therapy. To enable comparison among groups, median times from symptom onset to ED arrival and from ED arrival to imaging also were calculated. The American Stroke Association has recommended a goal for patients to receive evaluation and a decision on treatment within 60 minutes of arrival in the ED (3).

The significance of age-group differences by race and sex was analyzed using the *t* test. To determine whether racial dis-

parities occurred in prehospital and hospital delays, white patients were compared with black or African American\* patients; other racial/ethnic groups were too small in number for analysis. Mode of arrival at the ED was recorded as ambulance, nonambulance, and unknown. The chi-square test was used to examine the significance of differences in characteristics between patients arriving at the ED within 2 hours of symptom onset, compared with those arriving more than 2 hours after symptom onset. The chi-square test also was used to examine the differences in characteristics between patients receiving brain imaging within 1 hour of ED arrival compared with those who received imaging after 1 hour of arrival, among those patients who arrived in the ED within 2 hours of symptom onset. The Wilcoxon test was used to determine significance in differences in median times between groups; median times were restricted to  $\leq 24$  hours (6,7).

Among the 17,643 patients in the study, 53.3% were women, 75.8% were white, 19.6% were black or African American, and 2.7% were Hispanic (Table 1). Overall, 66.1% of stroke patients were aged  $\geq 65$  years. Among these patients, women were older than men (mean age: 72.0 versus 67.7 years,  $p < 0.001$ ), and whites were older than blacks or African Americans (mean age: 72.2 versus 62.4 years,  $p < 0.001$ ). Ischemic stroke (65.1%) was the most common stroke subtype, followed by transient ischemic attack (24.0%) and hemorrhagic stroke (9.7%). More patients (53.4%) were transported by ambulance than by other means (43.6%) (Table 1).

Information on the time of stroke symptom onset was recorded for 7,901 (44.8%) of the 17,643 patients. Among these patients, 3,795 (48.0%) arrived at the ED within 2 hours of stroke-symptom onset (Table 2). Significantly fewer blacks or African Americans (42.4%) arrived within 2 hours of symptom onset compared with whites (49.5%), and significantly fewer nonambulance patients (36.2%) arrived within 2 hours of symptom onset compared with patients transported by ambulance (56.8%) (Table 2). The median arrival time for all patients with known time of onset was 2.0 hours.

Among the 3,795 patients who arrived at the ED within 2 hours of symptom onset, 3,491 had data recorded regarding the interval from ED arrival to receipt of brain imaging. A total of 2,275 (65.2%) received imaging within 1 hour of ED arrival. Significantly fewer women received imaging within 1 hour of ED arrival than men (62.9% versus 67.6%,  $p = 0.004$ ) (Table 3), and fewer nonambulance patients received imaging within 1 hour compared with patients transported by ambu-

\* The Coverdell registry uses the following racial categories in its data collection: white, black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, other, specify (other), and unknown.

**TABLE 1. Percentage of patients who experienced out-of-hospital strokes\* and were admitted through hospital emergency departments, by state and selected characteristics — Paul Coverdell National Acute Stroke Registry, January 2005–September 2006**

Characteristic	Georgia (n = 2,840) %	Illinois (n = 3,848) %	Massachusetts (n = 5,782) %	North Carolina (n = 5,173) %	Total (N = 17,643) %
<b>Sex</b>					
Men	48.3	46.3	47.2	45.8	46.7
Women	51.7	53.7	52.8	54.2	53.3
<b>Age group (yrs)</b>					
18–44	7.9	5.8	3.7	5.6	5.4
45–64	37.6	27.6	22.5	31.0	28.5
65–84	42.1	50.9	52.8	48.4	49.4
≥85	12.4	15.6	21.0	15.0	16.7
<b>Race</b>					
White	57.2	77.2	88.0	71.4	75.8
Black or African American	37.1	17.7	6.7	25.8	19.6
Asian/Native Hawaiian or Other Pacific Islander	2.0	2.0	1.4	0.7	1.4
Multiple race	2.3	2.9	3.4	2.0	2.7
American Indian or Alaska Native/Other/Unknown	1.3	0.2	0.5	0.1	0.5
<b>Ethnicity</b>					
Hispanic	1.5	4.4	3.5	1.2	2.7
Non-Hispanic	74.0	95.6	80.8	91.6	86.1
Unknown	24.5	—	15.7	7.2	11.2
<b>Stroke subtype (ICD-9-CM<sup>†</sup> code)</b>					
Hemorrhagic (430–432)	14.6	10.4	5.3	11.3	9.7
Ischemic (433–434)	66.1	60.0	70.0	63.0	65.1
Transient ischemic attack (435)	18.1	28.9	22.8	24.9	24.0
Acute ill-defined stroke (436)	1.2	0.6	1.7	0.5	1.0
Both hemorrhagic and ischemic	0.1	0.1	0.2	0.3	0.2
<b>Information available regarding time of stroke symptom onset</b>	37.8	47.0	44.3	47.5	44.8
<b>Arrival mode</b>					
Ambulance	52.9	43.4	58.9	54.9	53.4
Other transportation	42.1	53.9	37.7	43.4	43.6
Unknown	5.0	2.7	3.4	1.7	3.0

\* Excludes patients residing in nursing homes.

<sup>†</sup> International Classification of Diseases, Ninth Revision, Clinical Modification.

lance (56.3% versus 69.2%,  $p=0.001$ ) (Table 3). No disparities among racial groups were observed regarding receipt of imaging within 1 hour of ED arrival (Table 3). Among those patients who arrived at the ED within 2 hours, the median time from ED arrival to brain imaging was 0.73 hours (43.8 minutes) (Table 3).

**Reported by:** M Frankel, MD, Emory Univ, Atlanta, Georgia; J Hinchey, MD, Tufts–New England Medical Center; LH Schwamm, MD, Harvard Medical School, Boston; H Wall MPH, Massachusetts Dept of Public Health; KM Rose, PhD, Univ of North Carolina–Chapel Hill; MG George, MD, HF McGruder, PhD, A Liban, MPA, JB Croft, PhD, Div for Heart Disease and Stroke Prevention, National Center for Chronic Disease Prevention and Health Promotion, CDC.

**Editorial Note:** For ischemic stroke patients to benefit from intravenous t-PA therapy, under current guidelines therapy should begin as soon as possible after diagnosis and determination of eligibility and within 3 hours of symptom onset (3). The findings described in this report indicate that fewer than

half of the patients arrived at the ED within 2 hours of symptom onset, whereas nearly two-thirds of those who arrived at the ED within 2 hours of onset received brain imaging within 1 hour of ED arrival. The findings also indicate that a greater proportion of blacks or African Americans, compared with whites, had longer prehospital delay times. Previous studies have indicated mixed results as to whether race was related to prehospital delay (8). Further studies regarding the use of ambulances by stroke patients in minority populations are needed to determine culturally effective interventions to increase the use of ambulances.

Patients arriving by ambulance had significantly shorter wait times for brain imaging. Consistent with previous reports (6), approximately half of the patients in the registry population arrived by ambulance. Arriving by ambulance might expedite triage decisions in the ED and lead to shorter delays before brain imaging. Both shorter prehospital and hospital delays will increase the proportion of patients with ischemic stroke



**TABLE 2. Number and percentage of stroke patients arriving at the emergency department (ED) within 2 hours of symptom onset, by selected characteristics — Paul Coverdell National Acute Stroke Registry, January 2005–September 2006**

Characteristic	Sample	Patients arriving at ED within 2 hours of symptom onset			Median time from symptom onset to ED arrival	
		No.	(%)	<i>p</i> <sup>*</sup>	Hrs	<i>p</i> <sup>†</sup>
<b>Total</b>	<b>7,901</b>	<b>3,795</b>	<b>(48.0)</b>		<b>2.00</b>	
<b>Sex</b>						
Men	3,832	1,844	(48.1)	0.88	2.00	0.64
Women	4,069	1,951	(48.0)		2.02	
<b>Race<sup>§</sup></b>						
White	6,211	3,072	(49.5)	<0.001	1.97	<0.001
Black or African American	1,345	570	(42.4)		2.30	
<b>Arrival mode<sup>¶</sup></b>						
Ambulance	4,575	2,597	(56.8)	<0.001	1.58	<0.001
Other transportation	3,193	1,156	(36.2)		2.88	

\* Chi-square test.

† Wilcoxon test.

§ Other racial groups too small for comparison.

¶ Data missing for 133 patients.

**TABLE 3. Number and percentage of patients receiving imaging within 1 hour among patients arriving at emergency department (ED) within 2 hours of symptom onset, by selected characteristics — Paul Coverdell National Acute Stroke Registry, January 2005–September 2006**

Characteristic	Sample	Patients receiving imaging within 1 hour after arriving at ED within 2 hours of symptoms onset			Median time from ED arrival to imaging	
		No.	(%)	<i>p</i> <sup>*</sup>	Hrs	<i>p</i> <sup>†</sup>
<b>Total</b>	<b>3,491</b>	<b>2,275</b>	<b>(65.2)</b>		<b>0.73</b>	
<b>Sex</b>						
Men	7,685	1,139	(67.6)	0.004	0.68	<0.001
Women	1,806	1,136	(62.9)		0.78	
<b>Race<sup>§</sup></b>						
White	2,815	1,834	(65.2)	0.85	0.73	0.61
Black or African American	533	345	(64.7)		0.72	
<b>Arrival mode<sup>¶</sup></b>						
Ambulance	2,422	1,675	(69.2)	<0.001	0.68	<0.001
Other transportation	1,029	579	(56.3)		0.90	

\* Chi-square test.

† Wilcoxon test.

§ Other racial groups too small for comparison.

¶ Data missing for 40 patients.

who can receive brain imaging, t-PA therapy, and early secondary prevention therapies and reduce their risk for severe disability from stroke.

Although some missing data might be attributed to record-keeping practices, the fact that time of symptom onset was recorded for only 44.8% of the stroke patients studied suggests a need for greater measures to educate the public to recognize the symptoms of stroke. Inability of patients to recognize stroke onset has been attributed to a lack of pain with symptoms and to cognitive, motor, and communication deficits (8). In some cases, stroke can even occur during sleep, without waking the patient.

The Brain Attack Coalition (BAC) has proposed designation of certain hospitals as Primary Stroke Services (PSS) facilities that stabilize and provide emergency care for patients with acute stroke (9). BAC recommends that ambulance coordination with PSS EDs should be an integral component of services to ensure rapid evaluation and transport of acute stroke patients to appropriate facilities (10). Use of coordinated ambulance services that include advance notification to receiving hospitals can increase opportunities for receipt of t-PA among those with ischemic stroke (10).

The findings in this report are subject to at least three limitations. First, time of symptom onset was recorded for fewer than half of the stroke patients. If delays experienced by patients with recorded onset were substantially different from those experienced by patients without recorded onset, selection bias might have resulted. In addition, this analysis did not differentiate between a time of onset when the patient or bystander first recognized stroke symptoms and a time when the patient was last known to be well before onset of symptoms. This difference might, in part, account for certain delays between onset of symptoms and arrival at the ED. Second, the results represent aggregate data from four states and are neither a random sample of stroke patients or hospitals from these states nor generalizable to other states; regional variations might be obscured, including differences in ambulance use by state. Finally, data were not weighted to reflect differences in hospitals, such as the number of stroke admissions, which might have led to underrepresentation of patients treated in smaller hospitals.

To maximize the number of patients who are eligible to receive t-PA, further measures are needed to reduce prehospital delays. Specifically, additional actions are needed to increase the proportion of patients with acute stroke symptoms who are transported to EDs by ambulance (8), such as educating the public regarding the signs and symptoms of stroke and the importance of telephoning for ambulance transport. Hospitals are advised to continue to monitor and improve ED

process times to reduce hospital delays before brain imaging for acute stroke patients.

#### References

1. Rosamond W, Flegal K, Friday G, et al. Heart disease and stroke statistics—2007 update: a report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation* 2007;115:e69–e171.
2. Turan TN, Hertzberg V, Weiss P, et al. Clinical characteristics of patients with early hospital arrival after stroke symptom onset. *J Stroke and Cerebrovascular Diseases* 2005;14:272–7.
3. Adams HP, del Zoppo G, Alberts MJ, et al. Guidelines for the early management of adults with ischemic stroke: a guideline from the American Heart Association/American Stroke Association Stroke Council, Clinical Cardiology Council, Cardiovascular Radiology and Intervention Council, and the Atherosclerotic Peripheral Vascular Disease and Quality of Care Outcomes in Research Interdisciplinary Working Groups. *Stroke* 2007;38:1655–711.
4. Marler JR, Tilley BC, Lu M, et al. Early stroke treatment associated with better outcome: the NINDS rt-PA stroke study. *Neurology* 2000;55:1649–55.
5. Wattigney WA, Croft JB, Mensah GA, et al. Establishing data elements for the Paul Coverdell National Acute Stroke Registry: part I: proceedings of an expert panel. *Stroke* 2003;34:151–6.
6. Morris DL, Rosamond W, Madden K, Schultz C, Hamilton S. Prehospital and emergency department delays after acute stroke: the Genentech Stroke Presentation Survey. *Stroke* 2000;31:2585–90.
7. Evenson KR, Rosamond WD, Morris DL. Prehospital and in-hospital delays in acute stroke care. *Neuroepidemiology* 2001;20:65–76.
8. Moser DK, Kimble LP, Alberts MJ, et al. Reducing delay in seeking treatment by patients with acute coronary syndrome and stroke: a scientific statement from the American Heart Association Council on Cardiovascular Nursing and Stroke Council. *Circulation* 2006;114:168–82.
9. Alberts MJ, Hademenos G, Latchaw RE, et al. Recommendations for the establishment of primary stroke centers. *Brain Attack Coalition*. *JAMA* 2000;283:3102–9.
10. Douglas VC, Tong DC, Gillum LA, et al. Do the Brain Attack Coalition's criteria for stroke centers improve care for ischemic stroke? *Neurology* 2005;64:422–7.

## Household Transmission of Vaccinia Virus from Contact with a Military Smallpox Vaccinee — Illinois and Indiana, 2007

On March 7, 2007, the Chicago Department of Public Health and the University of Chicago Pediatric Infectious Disease Service and Infection Control Program notified CDC of a child with presumed eczema vaccinatum (EV), a life-threatening complication of vaccinia virus infection (1). This is the first reported EV case in the United States since 1988 (2). This report summarizes the epidemiologic and environmental investigations conducted by local, state, and federal public health authorities in Illinois and Indiana to determine the source of exposure and to identify and monitor other persons at risk for vaccinia virus infection. This case highlights

the need for clinicians to maintain a high index of suspicion when evaluating recently vaccinated patients and their family members with vesiculopustular rash.

On January 26, 2007, an active-duty U.S. service member received a first-time smallpox vaccination in preparation for overseas military deployment. He had a history of childhood atopic dermatitis (i.e., eczema) and household contact with persons with eczema (two of his three children), both of which are contraindications to vaccination. His deployment was delayed, so he made an unplanned visit home to visit his family in Indiana during February 16–20. During this period, he spent time with his son, aged 28 months, who has severe eczema and a history of failure to thrive. The father reported his vaccination site had scabbed over and that the scab had separated before the visit home; he also reported that he kept the site bandaged during the visit. His routine activities with his son included hugging, wrestling, sleeping, and bathing.

On March 3, the child was taken to a small, local Indiana hospital because of a generalized papular, vesicular rash on the face, neck, and upper extremities. Because of the severity of the illness, he was transferred to a tertiary-care facility in Chicago later that day; contact precautions were implemented at the hospital. The child's mother indicated that the boy had a fever 2 days before his hospital admission and weeping skin lesions as early as February 24. By March 7, the rash had progressed to umbilicated lesions with an erythematous base, primarily involving the child's hands, forearms, neck, chest, face, and knees and encompassing 50% of his keratinized skin (Figure). On March 8, lesion specimens were analyzed at the Illinois Department of Public Health Laboratory (IDPHL) in

**FIGURE.** Abdomen and chest of a boy aged 28 months with a rash of umbilicated lesions caused by eczema vaccinatum — United States, 2007



Photo/John Marcinek

Chicago by real-time polymerase chain reaction (PCR) orthopoxvirus generic assay and nonvariola orthopoxvirus assay. The results of the assays were positive for orthopoxvirus DNA, supporting the clinical diagnosis of EV. The diagnosis of vaccinia was confirmed at CDC.

During March 8–28, the child was treated with a combination of immunotherapy and antivirals targeting vaccinia virus. The initial treatment included Vaccinia Immune Globulin Intravenous (Human) (VIGIV); supportive care included sedation, intubation, and mechanical ventilation. Despite these interventions, on March 10, the child's illness had progressed to hypothermia and hemodynamic instability requiring vasopressor support. Antiviral therapies with cidofovir and an investigational drug, ST-246 (SIGA Technologies, Corvallis, Oregon) under an Emergency Investigational Drug application, were initiated sequentially,\* and additional infusions of VIGIV were administered. After approximately 1 week of interventions, the child began to improve. On April 19, the child was discharged home after 48 days of hospitalization; he has no known sequelae other than possible scarring of the skin.

Clinical specimens (e.g., lesion material, blood, and serum) collected during the patient's hospitalization were analyzed in the CDC Poxvirus Laboratory. All specimens collected during the first 10 days of his hospitalization were positive for orthopoxvirus DNA using a real-time PCR assay. Before VIGIV administration, serum was positive for antiorthopoxvirus immunoglobulin M (IgM) and negative for immunoglobulin G (IgG) by enzyme-linked immunosorbent assay.

On March 6, the child's third hospital day, hospital staff members noticed that the patient's mother had approximately six vesicular lesions on her face; additional lesions subsequently developed on her right index finger and near her eyelid. The mother had a history of facial acne flare-ups and reported that she had rested her cheek on the child's abdomen while he was being treated in the hospital. Lesion material was analyzed by IDPHL and found to contain orthopoxvirus DNA signatures. The mother was isolated voluntarily in the same room as her son; on March 10, she received VIGIV treatment. Within 72 hours of the initiation of VIGIV treatment, her lesions began to scab over. Evaluation of serum collected from the mother on March 8 indicated that she had not yet developed an antiorthopoxvirus humoral immune response (IgG and IgM negative).

The couple has two other children, one with a history of eczema. Both children left the family residence at the time of the child's hospitalization and were cared for by their grand-

parents. Neither child had symptoms of vaccinia infection at the time of this report.

Public health and infection-control professionals interviewed community contacts, family members, and hospital staff members to identify persons who might have had physical contact (i.e., skin-to-skin) with the ill child after February 23 (the day before the child's first possible skin eruption) or the father while he was home on leave during February 16–20. Twenty-three family contacts, including the two siblings, and 73 health-care worker contacts were identified. Persons were monitored daily for the onset of contact vaccinia symptoms for 21 days after their last potential vaccinia exposure. During this period, one person had a rash, and one had fever; neither person had vaccinia virus infection. All other potential contacts remained healthy throughout the follow-up period; no nosocomial transmission occurred. Hospital and public health officials recommended that the mother and child remain isolated until they had no more vaccinia scabs.

Because the child had a rash before being hospitalized, an environmental assessment of the family home was conducted on March 13 to determine whether viable vaccinia virus was still present. Multiple swab samples obtained from the home (e.g., from a bathroom washcloth, a slipper, a toy drum, a night stand, a booster seat, and an ointment container) and from items brought to the child's hospital room (e.g., an infant drinking cup and a car seat) were positive for vaccinia virus DNA by real-time PCR assay. Cell culture of samples collected from three of these items (booster seat, toy drum, and slipper) contained viable virus. Disinfection procedures were completed on March 23 and included steam cleaning of carpeted areas, disinfection of household surfaces with phenolics, and hot washing of clothing and linens after a phenolic presoak.

**Reported by:** J Marcinak, MD, S Vora, MD, S Weber, MD, K Thomson, PhD, S Garcia-Houchins, Univ of Chicago Comer Children's Hospital; S Gerber, Chicago Dept of Public Health; C Conover, MD, J Nawrocki, PhD, K Hunt, Illinois Dept of Public Health. R Panares, MD, B Suter, K Siegfried, Hammond Health Dept; R Teclaw, DVM, C Graves, MD, W Staggs, MS, D Allen, MS, K Buffin, MS, P Pontones, MA, Indiana State Dept of Health. V Fulginiti, MD, Univ of Arizona and Univ of Colorado. L Collins, MD, Walter Reed Vaccine Healthcare Center. D Scott, MD, Center for Biologics Evaluation and Research. P Patel, RPh, K Chan-Tack, MD, J DiGiacinto, PharmD, Div of Antiviral Products, Food and Drug Admin. I Damon, MD, M Reynolds, PhD, R Regnery, PhD, E Belay, MD, K Kareem, PhD, V Olson, PhD, Y Li, PhD, S Smith, MS, Z Braden, C Hughes, MPH, Div of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases; A Fleischauer, PhD, P Diaz, MD, L Rotz, MD, N Pesik, MD, J Barson, DO, W Bower, MD, Div of Bioterrorism Preparedness and Response, National Center for Preparedness, Detection, and Control of Infectious Diseases; J Openshaw,

\* Cidofovir is administered as a weekly dose as clinically indicated and reserved as second-line therapy after VIGIV in the treatment of eczema vaccinatum (3). ST-246 is a smallpox drug candidate with specific antiorthopoxvirus activity inhibiting virus maturation.

MS, CDC Experience Fellow; R Miramontes, PA-C, E Lederman, MD, EIS officers, CDC.

**Editorial Note:** This report describes the first documented case of EV in the United States since 1988 (2). The epidemiologic investigation and clinical history indicated that secondary transmission of vaccinia virus occurred between the father and child. The stage of healing of the father's vaccination site during the exposure period was reported by the father and was not clinically confirmed, nor was consistent use of a bandage. Serologic evidence and clinical history further suggests that tertiary transmission might have occurred between the child and mother. In addition, the possibility of transmission by fomites (i.e., contaminated objects such as toys and towels) cannot be excluded; the targeted environmental assessment detected infectious virus more than 1 week after the ill child had left the home.

The World Health Organization declared smallpox eradicated in 1979. However, smallpox vaccination was required for U.S. military personnel until 1990, when it was discontinued. After the September 11, 2001, terrorist attacks and the 2001 anthrax cases, the U.S. government reinstated smallpox vaccination for military personnel and selected health-care workers. The U.S. Department of Defense had vaccinated approximately 1.2 million persons as of March 2007.<sup>†</sup>

The smallpox vaccine contains live vaccinia virus, which confers protection against infection from variola virus, the cause of smallpox. Vaccinia virus can be transmitted from a vaccine recipient to other persons through direct (skin-to-skin) contact via material from the unhealed vaccination site or through indirect contact by means of fomites (4–6). Vaccinia virus can be cultured from the site of primary vaccination beginning at the time of development of a papule (i.e., 2–5 days after vaccination). Generally, a scab forms at the vaccination site by day 14 and falls off by day 21 (7). Until the vaccination scab falls off, a person who has been vaccinated can transmit vaccinia virus to others. Persons who are infected through contact with a person who has received smallpox vaccination are at risk for the same adverse reactions to smallpox vaccination as the vaccine recipient.

EV is a rare but serious reaction to smallpox vaccine. A history of eczema, atopic dermatitis (regardless of disease severity or activity), or Darier's disease is a risk factor for EV, both for vaccine recipients and their close contacts; having household contacts with any of these conditions also is a contraindication. Although no data exist to predict the risk for EV among such persons, before 1990, the incidence rate for EV after smallpox vaccination was approximately eight to 80 cases

per 1 million vaccinations (8). The introduction of intramuscularly administered vaccinia immune globulin treatment was estimated to have reduced EV-associated mortality from 30%–40% to 7% (9). Licensed in 2005, VIGIV is the only product available that is approved by the Food and Drug Administration for treating patients with EV (8).

Consistent with current Advisory Committee on Immunization Practices guidelines to prevent transmission of vaccinia from vaccinated persons to close personal contacts, persons who have been vaccinated should wear long-sleeved clothing and cover the vaccination site with gauze or a similar semipermeable dressing until the scab separates from the skin independently (i.e., without assistance from the person) (3). Vaccinated persons should not share towels or clothing with others and should wash their hands with warm, soapy water or a hand-rub solution containing  $\geq 60\%$  alcohol immediately after they touch their vaccination site or change their vaccination-site bandages (3). Contraindications to smallpox vaccination should be considered before the administration of vaccine; these include pregnancy, immune-compromising conditions (e.g., human immunodeficiency virus infection), or a chronic skin disease such as eczema. Having household contacts with any of these conditions also is a contraindication. Agencies whose health-care providers administer smallpox vaccine should periodically assess the effectiveness of vaccine-related education for these providers and for the vaccine recipients.

The administration of smallpox vaccine to this service member and his subsequent contact with his family are under investigation by the U.S. military, which will determine whether screening and education practices need to be modified (10). Health-care workers treating patients with EV, generalized vaccinia infection, or progressive vaccinia infection should follow contact precautions until patients' scabs have separated. Clinicians should maintain a high index of suspicion for vaccinia when evaluating vesiculopapular rashes in patients who have been vaccinated recently and in their close contacts. Suspected cases of vaccinia should be reported to state or local health departments and to the Vaccine Adverse Events Reporting System online (<http://vaers.hhs.gov>) or by telephone (800-822-7967). Laboratories that are part of the Laboratory Response Network (LRN) (<http://www.bt.cdc.gov/lrn>) have the ability to assess clinical specimens for the presence of orthopoxvirus DNA signatures. Specimens from the LRN can be forwarded to the CDC Poxvirus Laboratory for species confirmation.

#### References

1. Engler RJ, Kenner J, Leung DY. Smallpox vaccination: risk considerations for patients with atopic dermatitis. *J Allergy Clin Immunol* 2002;110:357–65.

<sup>†</sup> US Army Center for Health Promotion and Preventive Medicine. Defense manpower data center statistical immunization reporting system; 2007.



2. Wien TM, Benton FR, Guill MA. Eczema vaccinatum in an 18-month-old male. *Mil Med* 1988;153:397-9.
3. CDC. Smallpox vaccination and adverse reactions. Guidance for clinicians. *MMWR* 2003;52(No. RR-4).
4. CDC. Secondary and tertiary transfer of vaccinia virus among U.S. military personnel—United States and worldwide, 2002–2004. *MMWR* 2004;53:103–5.
5. Neff JM, Lane JM, Fulginiti VA, Henderson DA. Contact vaccinia—transmission of vaccinia from smallpox vaccination. *JAMA* 2002;288:1901–5.
6. Sepkowitz KA. How contagious is vaccinia? *N Engl J Med* 2003;348:439–46.
7. CDC. Vaccinia (smallpox) vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001. *MMWR* 2001;50(No. RR-10).
8. Wittek R. Vaccinia immune globulin: current policies, preparedness, and product safety and efficacy. *Int J Infect Dis* 2006;10:193–201.
9. Kempe CH. Studies smallpox and complications of smallpox vaccination. *Pediatrics* 1960;26:176–89.
10. Grabenstein JD, Winklerwerder W Jr. US military smallpox vaccination program experience. *JAMA* 2003;289:3278–82.

### Notice to Readers

## Recreational Water Illness Prevention Week — May 21–27, 2007

The third annual National Recreational Water Illness Prevention Week is scheduled for May 21–27, 2007, at the onset of swimming season, to raise awareness regarding the potential for spread of infectious diseases at swimming venues and the need to improve prevention measures. An estimated 8.1 million swimming pools are available for private or public use in the United States (1). Each year, U.S. residents make an estimated 360 million visits to recreational water venues (e.g., swimming pools, spas, lakes, and oceans), making swimming the second most common physical activity (after walking) in the country and the most common among children (2). The number of waterparks has increased to approximately 1,000 in North America, with another 600 elsewhere around the world. Approximately 73 million visits were made to North American waterparks in 2004, and the number of visits increased by 3%–5% during the preceding 5 years (3). Recreational water illnesses (RWIs) are spread by swallowing, breathing, or having contact with contaminated water from swimming pools, spas, lakes, rivers, or oceans (4). The most commonly reported RWI is diarrhea caused by pathogens such as *Cryptosporidium*, *Giardia*, *Shigella*, and *Escherichia coli* O157:H7. Children, pregnant women, and persons with compromised immune systems are at greatest risk. Infection with *Cryptosporidium* can be life threatening to persons with weakened immune systems (5). Other RWIs can cause various ailments, including skin, ear, eye, respiratory, wound, and neurologic infections.

During 1978–2004, a steady increase in RWI outbreaks in the United States resulted in approximately 30,000 illnesses (6). This increase likely can be attributed to a combination of increased water usage, improved outbreak detection, and increased disease transmission. The spread of RWIs is facilitated by emergence of chlorine-resistant pathogens such as *Cryptosporidium* (6), poor pool maintenance (7), and low public awareness of the problem (8). Recommendations for public swimming pools include improved operation, training, and public education to protect swimmers from infectious-disease transmission.

Public health agencies and officials are encouraged to become involved in Recreational Water Illness Prevention Week by engaging the public, local aquatic operators, and the media in prevention activities. Suggestions for promoting healthy swimming are available at <http://www.cdc.gov/healthyswimming/tools.htm>. Additional information for public health professionals, aquatics staff members, and the general public is available at <http://www.cdc.gov/healthy-swimming> and [http://www.cdc.gov/healthyswimming/rwi-prevention\\_week.htm](http://www.cdc.gov/healthyswimming/rwi-prevention_week.htm).

### References

1. Pool and spa marketing. United States swimming pool market. Markham, Ontario: Hubbard Marketing and Publishing Ltd.; 2003:20–1.
2. US Bureau of the Census. Statistical abstract of the United States: 1995. 115th ed. Washington, DC: US Bureau of the Census; 1995.
3. World Waterpark Association. Waterpark industry general and fun facts. Available at <http://www.waterparks.org/otherarticles/generalfacts.pdf>.
4. Castor ML, Beach MJ. Reducing illness transmission from disinfected recreational water venues: swimming, diarrhea, and the emergence of a new public health concern. *Pediatr Infect Dis J* 2004;23:866–70.
5. Chen XM, Keithly JS, Paya CV, LaRusso NF. *Cryptosporidiosis*. *N Engl J Med* 2002;346:1723–31.
6. CDC. Surveillance for waterborne disease and outbreaks associated with recreational water—United States, 2003–2004. *MMWR* 2006;55(No. SS-12).
7. CDC. Surveillance data from swimming pool inspections: selected states and counties—United States, May–September 2002. *MMWR* 2003; 52:513–6.
8. McClain J, Bernhardt JM, Beach MJ. Assessing parents' perception of children's risk for recreational water illnesses. *Emerg Infect Dis* 2005;11:670–6.

### Notice to Readers

## Click It or Ticket Campaign — May 21–June 3, 2007

During 2005, motor-vehicle crashes resulted in 33,041 deaths to vehicle occupants (excluding motorcyclists), and nearly 3 million occupants were treated for injuries in emergency departments in the United States (1,2). Safety belts, child safety seats, and booster seats can prevent serious injury and death during a crash.

Despite the demonstrated effectiveness of occupant restraints in motor vehicles, millions of adults and children travel unrestrained. Certain age groups are less likely to be restrained than others. For example, in the United States, children aged 4–7 years are less likely than younger children to be restrained. In 2006, 22% of children in this age group were unrestrained, compared with 11% of children aged 1–3 years and 2% of infants (3). Furthermore, restraint use among children aged 4–7 years decreased from 83% in 2002 to 78% in 2006 (3,4). CDC recommends booster seats for children who have outgrown their child safety seats but are less than 4 feet, 9 inches tall (5). Children whose drivers are wearing a safety belt are more likely to be restrained than those whose drivers are not wearing a safety belt (3). Therefore, increasing adult use of safety belts through enforcement of safety belt laws might also increase the numbers of children who are restrained (6).

Click It or Ticket, May 21–June 3, 2007, is a national campaign that is coordinated by the National Highway Traffic Safety Administration to increase the proper use of safety belts and child restraints. Law-enforcement agencies nationwide will participate by conducting intensive, high-visibility enforcement of safety belt and child restraint laws.

Additional information regarding Click It or Ticket activities is available from the National Highway Traffic Safety Administration website at <http://www.nhtsa.gov>. Additional information on child passenger safety is available at <http://www.cdc.gov/ncipc/factsheets/childpas.htm>; information on preventing motor-vehicle crash injuries is available at <http://www.cdc.gov/ncipc/duip/mvsafety.htm>.

#### References

1. National Highway Traffic Safety Administration. Traffic safety facts 2005. Washington, DC: US Department of Transportation; 2006 (publication no. DOT-HS-810-631).
2. CDC. WISQARS nonfatal injury reports. Atlanta, GA: US Department of Health and Human Services, CDC. Available at <http://webappa.cdc.gov/sasweb/ncipc/nfirates2001.html>.
3. Glassbrenner D, Ye J. Child restraint use in 2006—overall results. Washington, DC: US Department of Transportation; 2007 (publication no. DOT-HS-810-737).
4. National Highway Traffic Safety Administration. Traffic safety facts 2002: children. Washington, DC: US Department of Transportation; 2003 (publication no. DOT-HS-809-607).
5. CDC. National child passenger safety week—February 14–20, 1999. MMWR 1999;48:83–4.
6. Russell J, Kresnow MJ, Brackbill R. The effect of adult belt laws and other factors on restraint use for children under age 11. *Accid Anal Prev* 1994;26:287–95.

TABLE 1. Provisional cases of infrequently reported notifiable diseases (&lt;1,000 cases reported during the preceding year) — United States, week ending May 12, 2007 (19th Week)\*

Disease	Current week	Cum 2007	5-year weekly average†	Total cases reported for previous years					States reporting cases during current week (No.)
				2006	2005	2004	2003	2002	
Anthrax	—	—	—	1	—	—	—	2	
Botulism:									
foodborne	—	—	0	19	19	16	20	28	
infant	1	25	1	96	85	87	76	69	UT (1)
other (wound & unspecified)	1	5	1	47	31	30	33	21	AZ (1)
Brucellosis	3	43	2	116	120	114	104	125	NC (1), CA (2)
Chancroid	1	10	1	33	17	30	54	67	LA (1)
Cholera	—	—	0	7	8	5	2	2	
Cyclosporiasis‡	1	21	17	135	543	171	75	156	FL (1)
Diphtheria	—	—	—	—	—	—	1	1	
Domestic arboviral diseases§:									
California serogroup	—	—	0	63	80	112	108	164	
eastern equine	—	—	—	7	21	6	14	10	
Powassan	—	—	—	1	1	1	—	1	
St. Louis	—	—	0	9	13	12	41	28	
western equine	—	—	—	—	—	—	—	—	
Ehrlichiosis§:									
human granulocytic	1	17	6	619	786	537	362	511	NY (1)
human monocytic	5	45	3	504	506	338	321	216	MI (1), MO (1), NC (1), TN (1), TX (1)
human (other & unspecified)	—	15	1	236	112	59	44	23	
Haemophilus influenzae,**									
invasive disease (age <5 yrs):									
serotype b	—	4	1	15	9	19	32	34	
nonserotype b	—	30	3	131	135	135	117	144	
unknown serotype	3	100	4	221	217	177	227	153	MO (2), AZ (1)
Hansen disease‡	—	18	2	60	87	105	95	96	
Hantavirus pulmonary syndrome‡	—	4	1	37	26	24	26	19	
Hemolytic uremic syndrome, postdiarrheal‡	—	36	3	276	221	200	178	216	
Hepatitis C viral, acute	5	221	21	810	652	713	1,102	1,835	TN (1), AL (1), TX (1), CA (2)
HIV infection, pediatric (age <13 yrs)††	—	—	6	52	380	436	504	420	
Influenza-associated pediatric mortality‡‡§§	2	57	0	41	45	—	N	N	NYC (1), OK (1)
Listeriosis	3	163	10	833	896	753	696	665	PA (1), CA (2)
Measles¶¶	1	11	1	54	66	37	56	44	FL (1)
Meningococcal disease, invasive***:									
A, C, Y, & W-135	1	89	6	260	297	—	—	—	NC (1)
serogroup B	1	36	3	163	156	—	—	—	NC (1)
other serogroup	—	7	0	28	27	—	—	—	
unknown serogroup	5	264	14	667	765	—	—	—	NYC (1), CO (1), CA (3)
Mumps	9	352	100	6,566	314	258	231	270	NY (2), PA (1), OH (1), IL (1), MD (1), WA (1), CA (2)
Novel influenza A virus infections	—	—	—	N	N	N	N	N	
Plague	—	—	0	17	8	3	1	2	
Polio myelitis, paralytic	—	—	—	—	1	—	—	—	
Poliovirus infection, nonparalytic‡	—	—	—	N	N	N	N	N	
Psittacosis‡	—	3	0	19	16	12	12	18	
Q fever‡	1	58	2	173	136	70	71	61	OH (1)
Rabies, human	—	—	—	3	2	7	2	3	
Rubella†††	—	7	0	10	11	10	7	18	
Rubella, congenital syndrome	—	—	—	1	1	—	1	1	
SARS-CoV‡‡‡§§§	—	—	0	—	—	—	8	N	
Smallpox‡	—	—	—	—	—	—	—	—	
Streptococcal toxic-shock syndrome‡	1	27	3	124	129	132	161	118	KY (1)
Syphilis, congenital (age <1 yr)	—	62	7	379	329	353	413	412	
Tetanus	—	3	1	37	27	34	20	25	
Toxic-shock syndrome (staphylococcal)‡	2	27	2	95	90	95	133	109	KY (2)
Trichinellosis	—	1	0	13	16	5	6	14	
Tularemia	—	3	2	90	154	134	129	90	
Typhoid fever	—	88	6	322	324	322	356	321	
Vancomycin-intermediate <i>Staphylococcus aureus</i> ‡	—	3	—	6	2	—	N	N	
Vancomycin-resistant <i>Staphylococcus aureus</i> ‡	—	—	0	1	3	1	N	N	
Vibriosis (non-cholera <i>Vibrio</i> species infections)‡	4	49	0	N	N	N	N	N	FL (4)
Yellow fever	—	—	—	—	—	—	—	1	

—: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts.

\* Incidence data for reporting years 2006 and 2007 are provisional, whereas data for 2002, 2003, 2004, and 2005 are finalized.

† Calculated by summing the incidence counts for the current week, the 2 weeks preceding the current week, and the 2 weeks following the current week, for a total of 5 preceding years. Additional information is available at <http://www.cdc.gov/epo/dphsi/phs/files/5yearweeklyaverage.pdf>.‡ Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/nfdis.htm>.

§ Includes both neuroinvasive and non-neuroinvasive. Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for West Nile virus are available in Table II.

\*\* Data for *H. influenzae* (all ages, all serotypes) are available in Table II.

†† Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Implementation of HIV reporting influences the number of cases reported. Updates of pediatric HIV data have been temporarily suspended until upgrading of the national HIV/AIDS surveillance data management system is completed. Data for HIV/AIDS, when available, are displayed in Table IV, which appears quarterly.

§§ Updated weekly from reports to the Influenza Division, National Center for Immunization and Respiratory Diseases. A total of 58 cases were reported for the 2006–07 flu season.

¶¶ The one measles case reported for the current week was indigenous.

\*\*\* Data for meningococcal disease (all serogroups) are available in Table II.

††† No rubella cases were reported for the current week.

§§§ Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Chlamydia <sup>1</sup>					Coccidioidomycosis					Cryptosporidiosis				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	11,098	19,916	25,550	341,530	366,652	127	151	661	2,884	3,095	26	68	302	839	937
<b>New England</b>	569	673	1,360	11,798	11,356	—	0	0	—	—	—	3	22	39	75
Connecticut	266	201	829	2,989	2,835	N	0	0	N	N	—	0	10	10	38
Maine <sup>2</sup>	49	46	74	919	766	—	0	0	—	—	—	0	6	9	9
Massachusetts	153	303	604	5,650	5,414	—	0	0	—	—	—	0	14	—	22
New Hampshire	33	38	69	713	667	—	0	0	—	—	—	1	5	8	4
Rhode Island <sup>3</sup>	68	63	108	1,237	1,225	—	0	0	—	—	—	0	5	5	—
Vermont <sup>2</sup>	—	20	45	290	449	N	0	0	N	N	—	1	4	7	2
<b>Mid. Atlantic</b>	2,312	2,570	4,281	50,747	44,790	—	0	0	—	—	3	10	33	101	154
New Jersey	—	377	541	5,132	7,022	N	0	0	N	N	—	0	1	—	9
New York (Upstate)	466	509	2,745	9,009	8,139	N	0	0	N	N	3	3	13	37	31
New York City	381	768	1,523	15,633	15,268	N	0	0	N	N	—	2	10	19	43
Pennsylvania	1,465	819	1,331	20,973	14,361	N	0	0	N	N	—	3	18	45	71
<b>E.N. Central</b>	1,521	3,186	6,184	60,160	62,777	—	1	3	10	15	2	15	110	189	212
Illinois	468	987	1,270	16,266	20,281	—	0	0	—	—	—	2	22	17	27
Indiana	327	376	644	7,652	7,559	—	0	0	—	—	—	1	18	15	15
Michigan	352	765	1,225	13,203	10,989	—	0	3	8	11	—	3	10	45	34
Ohio	274	649	3,648	16,439	16,006	—	0	2	2	4	2	5	33	66	74
Wisconsin	100	376	528	6,600	7,942	N	0	0	N	N	—	4	53	46	62
<b>W.N. Central</b>	322	1,192	1,445	17,831	22,597	—	0	54	3	—	2	11	77	127	140
Iowa	122	165	238	3,106	3,143	N	0	0	N	N	1	2	28	22	12
Kansas	64	152	266	2,886	3,002	N	0	0	N	N	—	1	8	18	19
Minnesota	2	243	314	3,379	4,822	—	0	54	—	—	—	2	25	31	55
Missouri	—	440	626	5,220	8,098	—	0	1	3	—	1	2	21	25	29
Nebraska <sup>3</sup>	74	105	185	1,890	1,867	N	0	0	N	N	—	1	16	6	10
North Dakota	8	28	64	446	709	N	0	0	N	N	—	0	1	1	1
South Dakota	52	49	84	904	956	N	0	0	N	N	—	1	7	24	14
<b>S. Atlantic</b>	1,802	3,588	7,061	51,287	70,136	—	0	1	1	2	16	17	68	228	215
Delaware	58	69	111	1,287	1,310	N	0	0	N	N	—	0	3	2	—
District of Columbia	97	75	161	1,967	1,087	—	0	0	—	—	—	0	2	3	6
Florida	—	928	1,187	3,300	17,086	N	0	0	N	N	9	7	32	111	90
Georgia	—	700	3,811	7,608	12,294	N	0	0	N	N	—	5	12	52	59
Maryland <sup>3</sup>	323	390	669	5,616	7,396	—	0	1	1	2	—	0	2	10	6
North Carolina	769	624	1,207	11,205	13,334	—	0	0	—	—	7	1	11	20	29
South Carolina <sup>3</sup>	—	410	2,105	10,184	8,042	N	0	0	N	N	—	1	14	13	8
Virginia <sup>3</sup>	497	479	685	9,149	8,499	N	0	0	N	N	—	1	5	15	15
West Virginia	58	56	80	971	1,088	N	0	0	N	N	—	0	3	2	2
<b>E.S. Central</b>	1,095	1,489	2,095	28,218	27,914	—	0	0	—	—	—	3	14	47	36
Alabama <sup>3</sup>	—	419	539	6,366	9,032	N	0	0	N	N	—	0	11	17	13
Kentucky	134	126	691	2,752	3,561	N	0	0	N	N	—	1	3	16	10
Mississippi	415	414	959	8,477	6,107	N	0	0	N	N	—	0	8	8	3
Tennessee <sup>3</sup>	546	530	701	10,623	9,214	N	0	0	N	N	—	1	5	6	10
<b>W.S. Central</b>	1,364	2,182	3,028	40,048	40,974	—	0	1	—	—	—	5	45	32	43
Arkansas <sup>3</sup>	93	168	337	3,143	3,003	N	0	0	N	N	—	0	2	2	5
Louisiana	85	315	610	5,210	6,244	—	0	1	—	—	—	1	9	14	—
Oklahoma	170	263	472	4,641	4,014	N	0	0	N	N	—	0	4	11	11
Texas <sup>3</sup>	1,016	1,459	1,911	27,054	27,713	N	0	0	N	N	—	2	36	5	27
<b>Mountain</b>	360	1,331	2,025	19,945	23,877	97	100	296	2,007	2,216	3	4	40	54	35
Arizona	45	479	993	6,455	7,187	97	97	296	1,965	2,152	1	0	4	13	4
Colorado	64	312	416	3,229	5,748	N	0	0	N	N	2	1	7	13	9
Idaho <sup>3</sup>	—	44	253	1,263	1,169	N	0	0	N	N	—	0	5	4	4
Montana <sup>3</sup>	1	52	144	895	861	N	0	0	N	N	—	0	26	4	5
Nevada <sup>3</sup>	135	167	397	3,327	2,816	—	1	3	15	30	—	0	3	3	3
New Mexico <sup>3</sup>	—	171	324	2,591	3,713	—	0	3	7	6	—	0	5	9	5
Utah	115	96	200	1,750	1,836	—	1	4	20	26	—	0	3	1	5
Wyoming <sup>3</sup>	—	28	46	435	547	—	0	0	—	2	—	0	11	7	—
<b>Pacific</b>	1,753	3,362	4,360	61,496	62,231	30	53	311	863	862	—	1	5	22	27
Alaska	79	87	157	1,558	1,520	N	0	0	N	N	—	0	1	—	1
California	1,194	2,651	3,627	48,166	48,425	30	53	311	863	862	—	0	0	—	—
Hawaii	2	107	130	1,772	2,119	N	0	0	N	N	—	0	1	—	—
Oregon <sup>3</sup>	138	161	394	3,386	3,522	N	0	0	N	N	—	1	4	22	26
Washington	340	348	621	6,614	6,645	N	0	0	N	N	—	0	0	—	—
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	150	114	235	2,654	1,826	N	0	0	N	N	N	0	0	N	N
U.S. Virgin Islands	U	4	9	U	U	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional. Data for HIV/AIDS, AIDS, and TB, when available, are displayed in Table IV, which appears quarterly.

<sup>1</sup> Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.<sup>2</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Giardiasis					Gonorrhea					Haemophilus influenzae, invasive All ages, all serotypes†				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	143	312	1,058	4,509	5,331	3,465	6,863	8,970	108,394	123,856	25	44	148	852	839
<b>New England</b>	2	18	45	183	387	88	110	260	1,899	1,943	3	2	12	31	52
Connecticut	—	5	25	70	94	34	43	204	644	713	3	0	6	20	11
Maine‡	1	4	14	49	30	4	2	8	35	44	—	0	4	6	5
Massachusetts	—	0	18	—	182	41	47	96	966	900	—	0	7	—	27
New Hampshire	1	0	9	3	2	4	2	8	57	88	—	0	3	4	2
Rhode Island§	—	0	17	22	27	5	10	19	179	177	—	0	3	1	2
Vermont§	—	3	12	39	52	—	1	5	18	21	—	0	2	—	5
<b>Mid. Atlantic</b>	27	63	122	811	1,078	710	682	1,546	13,533	11,905	4	10	26	193	178
New Jersey	—	7	17	36	168	—	102	155	1,483	1,950	—	1	5	17	32
New York (Upstate)	15	25	101	306	319	108	122	1,035	2,196	2,150	3	3	14	56	45
New York City	2	16	32	263	349	71	176	376	3,429	3,735	—	2	6	38	36
Pennsylvania	10	14	35	206	242	531	244	435	6,425	4,070	1	3	10	82	65
<b>E.N. Central</b>	21	43	97	643	891	573	1,298	2,530	23,879	24,670	1	6	14	90	137
Illinois	—	9	27	103	198	146	356	485	5,705	7,437	—	1	5	11	38
Indiana	N	0	0	N	N	141	154	292	3,104	3,262	—	1	10	17	22
Michigan	7	13	38	217	244	128	307	880	5,587	4,057	—	0	5	12	18
Ohio	14	15	32	238	273	101	327	1,557	7,154	7,303	1	2	6	49	32
Wisconsin	—	9	27	85	176	57	133	181	2,329	2,611	—	1	4	1	27
<b>W.N. Central</b>	9	22	539	302	524	50	385	516	5,363	6,782	5	3	23	53	40
Iowa	—	5	16	63	83	13	40	63	695	647	—	0	1	—	—
Kansas	1	3	11	40	58	16	43	87	820	839	—	0	2	4	8
Minnesota	—	0	514	12	165	—	66	87	900	1,109	1	1	17	19	16
Missouri	2	9	28	131	149	—	195	269	2,354	3,575	3	1	5	23	13
Nebraska§	6	2	9	32	33	14	27	57	467	452	1	0	2	6	3
North Dakota	—	0	4	4	6	1	2	6	24	40	—	0	2	1	—
South Dakota	—	1	6	20	30	6	6	15	103	120	—	0	0	—	—
<b>S. Atlantic</b>	33	53	98	847	779	673	1,598	3,277	20,151	29,738	6	11	28	236	209
Delaware	—	1	4	9	8	24	28	44	513	534	—	0	3	5	1
District of Columbia	5	1	7	28	21	28	37	63	823	665	—	0	2	2	1
Florida	20	24	44	401	317	—	431	549	1,564	7,937	3	3	8	75	71
Georgia	—	12	26	162	187	—	348	2,063	3,159	5,615	—	2	6	53	47
Maryland§	5	4	12	80	49	67	129	180	1,848	2,604	1	2	5	42	30
North Carolina	—	0	0	—	—	423	321	676	5,650	6,171	2	0	9	29	15
South Carolina§	1	2	8	24	38	—	171	1,026	4,163	3,679	—	1	4	22	18
Virginia§	2	9	28	133	151	123	123	238	2,182	2,251	—	0	7	1	17
West Virginia	—	0	21	10	8	8	18	44	249	282	—	0	6	7	9
<b>E.S. Central</b>	6	9	34	160	127	392	582	879	10,139	10,989	1	2	9	46	53
Alabama§	1	4	22	82	62	—	189	271	2,559	4,118	—	0	3	10	11
Kentucky	N	0	0	N	N	51	48	268	957	1,218	—	0	1	2	4
Mississippi	N	0	0	N	N	159	158	434	3,027	2,271	—	0	1	—	4
Tennessee§	5	5	12	78	65	182	195	240	3,596	3,382	1	1	6	34	34
<b>W.S. Central</b>	5	7	26	102	51	492	950	1,490	16,194	17,423	1	2	27	44	31
Arkansas§	1	3	13	45	23	64	80	142	1,510	1,659	—	0	2	3	2
Louisiana	—	1	6	22	1	39	193	366	3,126	3,678	—	0	3	4	1
Oklahoma	4	2	13	35	27	50	103	237	1,853	1,416	1	1	25	34	26
Texas§	N	0	0	N	N	339	566	938	9,705	10,670	—	0	2	3	2
<b>Mountain</b>	17	30	69	437	473	113	281	456	3,760	5,195	4	4	14	115	99
Arizona	4	3	11	63	42	10	104	220	1,328	1,771	2	2	9	53	37
Colorado	8	9	26	136	166	46	69	93	792	1,323	1	1	4	22	30
Idaho§	—	3	12	37	50	—	2	20	84	71	—	0	1	4	3
Montana§	—	2	11	29	23	—	3	20	34	54	—	0	0	—	—
Nevada§	—	2	9	33	36	32	48	135	789	982	—	0	2	5	6
New Mexico§	—	1	6	31	20	—	30	64	443	611	—	0	3	13	14
Utah	5	7	27	96	130	25	16	28	268	325	1	0	3	17	9
Wyoming§	—	1	4	12	6	—	2	5	22	58	—	0	1	1	—
<b>Pacific</b>	23	60	177	1,024	1,021	374	770	935	13,476	15,211	—	2	12	44	40
Alaska	—	1	17	20	14	5	10	27	154	199	—	0	2	4	3
California	13	43	93	719	762	287	637	804	11,399	12,589	—	0	10	—	10
Hawaii	—	1	4	25	21	3	14	26	220	391	—	0	1	2	7
Oregon§	—	9	14	139	141	13	26	46	392	503	—	1	6	38	19
Washington	10	8	68	121	83	66	74	142	1,311	1,529	—	0	2	—	1
American Samoa	U	0	0	U	U	U	1	4	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	—	5	19	52	42	4	5	16	125	124	—	0	2	1	1
U.S. Virgin Islands	U	0	0	U	U	U	0	3	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Data for *H. influenzae* (age <5 yrs for serotype b, nonserotype b, and unknown serotype) are available in Table I.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Hepatitis (viral, acute), by type <sup>†</sup>										Legionellosis				
	A					B									
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	23	54	124	876	1,377	46	80	319	1,340	1,475	10	49	109	456	462
<b>New England</b>	—	1	19	10	72	—	2	5	21	47	—	2	13	9	21
Connecticut	—	0	3	4	13	—	0	5	10	21	—	0	9	3	5
Maine <sup>§</sup>	—	0	2	—	4	—	0	2	1	8	—	0	2	—	3
Massachusetts	—	0	1	—	47	—	0	0	—	14	—	0	4	—	10
New Hampshire	—	0	15	3	2	—	0	2	4	—	—	0	2	—	2
Rhode Island <sup>§</sup>	—	0	2	3	2	—	0	4	5	3	—	0	6	5	—
Vermont <sup>§</sup>	—	0	2	—	4	—	0	1	1	1	—	0	2	1	1
<b>Mid. Atlantic</b>	1	7	18	112	115	3	9	20	154	187	2	15	57	121	133
New Jersey	—	1	4	21	37	—	2	6	30	55	—	2	11	12	16
New York (Upstate)	—	2	12	29	21	2	1	14	31	25	—	5	30	38	45
New York City	—	2	10	44	39	—	2	6	29	41	—	3	24	17	18
Pennsylvania	1	1	4	18	18	1	3	7	64	66	2	5	19	54	54
<b>E.N. Central</b>	2	6	13	82	113	3	9	19	152	166	2	10	30	89	91
Illinois	—	1	4	18	25	—	2	5	30	60	—	1	11	—	16
Indiana	—	0	7	5	10	—	0	17	13	10	—	1	5	5	3
Michigan	1	2	8	28	37	—	2	8	44	51	—	3	10	33	19
Ohio	1	1	4	25	29	3	3	10	60	42	2	4	19	47	39
Wisconsin	—	0	4	6	12	—	0	3	5	3	—	0	3	4	14
<b>W.N. Central</b>	6	2	17	55	49	3	2	14	49	50	—	1	16	14	14
Iowa	—	0	2	9	4	—	0	3	9	8	—	0	3	2	2
Kansas	—	0	1	1	17	—	0	2	4	6	—	0	3	—	1
Minnesota	5	0	17	29	2	—	0	13	4	3	—	0	11	2	—
Missouri	1	1	3	10	15	3	1	5	27	30	—	0	2	8	8
Nebraska <sup>§</sup>	—	0	2	4	6	—	0	3	3	2	—	0	2	1	2
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
South Dakota	—	0	2	2	5	—	0	1	2	1	—	0	1	1	1
<b>S. Atlantic</b>	2	9	27	160	192	8	23	53	353	426	3	9	24	115	111
Delaware	—	0	1	1	7	—	0	4	6	19	—	0	2	1	1
District of Columbia	—	0	5	14	2	—	0	2	1	4	—	0	5	1	4
Florida	—	3	13	57	67	4	7	14	123	149	1	3	9	53	54
Georgia	—	1	5	16	16	—	3	8	39	62	—	1	5	11	2
Maryland <sup>§</sup>	1	1	7	26	29	2	2	8	33	67	—	2	8	23	18
North Carolina	—	0	11	7	40	—	0	16	52	67	2	0	5	11	14
South Carolina <sup>§</sup>	—	0	3	4	8	1	2	5	29	26	—	0	2	5	3
Virginia <sup>§</sup>	1	1	5	33	22	1	2	5	51	15	—	1	5	7	14
West Virginia	—	0	3	2	1	—	0	23	19	17	—	0	4	3	1
<b>E.S. Central</b>	1	2	7	27	47	—	6	20	89	128	2	2	9	25	16
Alabama <sup>§</sup>	—	0	2	6	2	—	2	10	34	33	1	0	2	3	4
Kentucky	—	0	2	4	22	—	1	3	2	33	—	1	6	10	3
Mississippi	—	0	4	4	3	—	0	7	7	15	—	0	2	—	1
Tennessee <sup>§</sup>	1	1	5	13	20	—	3	7	46	47	1	1	7	12	8
<b>W.S. Central</b>	—	6	18	63	118	17	19	155	252	232	1	1	12	26	8
Arkansas <sup>§</sup>	—	0	2	4	28	—	1	7	7	23	—	0	1	1	1
Louisiana	—	0	4	8	3	—	1	5	17	8	—	0	2	1	—
Oklahoma	—	0	3	3	3	—	1	37	11	1	—	0	6	—	1
Texas <sup>§</sup>	—	5	15	48	84	17	15	108	217	200	1	1	12	24	6
<b>Mountain</b>	6	5	16	113	120	4	3	9	81	54	—	2	8	28	31
Arizona	3	4	15	93	68	3	0	5	37	2	—	1	4	10	10
Colorado	2	1	3	9	20	1	0	2	11	15	—	0	2	5	5
Idaho <sup>§</sup>	1	0	2	2	6	—	0	2	4	6	—	0	3	1	4
Montana <sup>§</sup>	—	0	3	1	2	—	0	0	—	—	—	0	1	1	—
Nevada <sup>§</sup>	—	0	2	5	6	—	1	5	16	14	—	0	2	2	4
New Mexico <sup>§</sup>	—	0	2	1	9	—	0	2	4	8	—	0	2	2	1
Utah	—	0	2	2	8	—	0	4	9	9	—	0	2	5	7
Wyoming <sup>§</sup>	—	0	1	—	1	—	0	1	—	—	—	0	1	2	—
<b>Pacific</b>	5	15	42	254	551	8	11	43	189	185	—	1	11	29	37
Alaska	—	0	1	1	1	—	0	3	3	1	—	0	1	—	—
California	5	13	40	231	510	6	8	31	143	141	—	1	11	23	37
Hawaii	—	0	2	2	6	—	0	1	—	2	—	0	0	—	—
Oregon <sup>§</sup>	—	1	3	10	17	—	2	5	29	27	—	0	1	1	—
Washington	—	0	4	10	17	2	1	12	14	14	—	0	2	5	—
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	—	1	10	16	18	—	1	9	14	13	—	0	0	—	1
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Data for acute hepatitis C, viral are available in Table I.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Lyme disease					Malaria					Meningococcal disease, invasive† All serogroups				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	77	251	1,029	1,990	2,195	7	24	49	252	400	7	19	38	396	518
<b>New England</b>	22	22	255	113	130	—	0	6	4	12	—	1	3	9	15
Connecticut	19	9	227	44	56	—	0	3	—	1	—	0	2	3	4
Maine‡	—	2	39	18	31	—	0	1	3	2	—	0	3	3	2
Massachusetts	—	0	3	—	26	—	0	3	—	7	—	0	1	—	9
New Hampshire	—	6	97	40	9	—	0	3	1	1	—	0	2	—	—
Rhode Island§	—	0	93	—	1	—	0	1	—	—	—	0	1	1	—
Vermont§	3	1	15	11	7	—	0	0	—	1	—	0	1	2	—
<b>Mid. Atlantic</b>	31	147	570	991	1,491	—	5	18	59	103	1	2	8	47	87
New Jersey	—	26	190	102	380	—	1	7	—	30	—	0	2	1	9
New York (Upstate)	26	52	392	317	599	—	1	7	15	8	—	1	4	13	18
New York City	—	3	23	6	19	—	3	9	37	54	1	1	4	13	30
Pennsylvania	5	45	237	566	493	—	1	4	7	11	—	0	5	20	30
<b>E.N. Central</b>	—	7	158	20	157	—	3	10	33	46	—	2	8	57	70
Illinois	—	0	1	2	—	—	1	6	10	17	—	0	2	13	18
Indiana	—	0	3	1	3	—	0	2	1	5	—	0	4	14	8
Michigan	—	1	5	6	3	—	0	2	7	6	—	0	3	13	13
Ohio	—	0	5	2	12	—	0	2	9	12	—	1	4	14	19
Wisconsin	—	6	154	9	139	—	0	3	6	6	—	0	2	3	12
<b>W.N. Central</b>	—	5	188	49	60	—	1	12	18	20	—	1	5	27	29
Iowa	—	1	8	7	16	—	0	1	2	1	—	0	3	7	8
Kansas	—	0	2	3	1	—	0	2	—	—	—	0	1	1	1
Minnesota	—	2	188	32	41	—	0	12	11	14	—	0	3	8	4
Missouri	—	0	3	7	—	—	0	1	2	3	—	0	3	8	10
Nebraska§	—	0	2	—	2	—	0	1	2	—	—	0	1	1	5
North Dakota	—	0	0	—	—	—	0	0	—	1	—	0	1	1	1
South Dakota	—	0	1	—	—	—	0	1	1	1	—	0	1	1	—
<b>S. Atlantic</b>	20	44	135	744	330	3	5	15	60	105	2	3	9	56	87
Delaware	6	9	28	160	121	—	0	1	2	3	—	0	1	—	2
District of Columbia	1	0	7	6	7	—	0	2	3	—	—	0	1	—	—
Florida	1	0	3	12	7	2	1	4	16	18	—	1	7	23	37
Georgia	—	0	1	—	1	—	1	6	4	36	—	0	3	6	9
Maryland§	6	22	106	451	174	1	1	4	18	17	—	0	2	13	5
North Carolina	—	0	4	6	8	—	0	4	5	10	2	0	6	6	14
South Carolina§	1	0	2	5	2	—	0	2	—	4	—	0	2	6	9
Virginia§	5	7	36	100	10	—	1	4	11	16	—	0	2	2	10
West Virginia	—	0	14	4	—	—	0	1	1	1	—	0	2	—	1
<b>E.S. Central</b>	1	1	4	11	2	—	0	3	10	8	—	1	4	21	20
Alabama§	1	0	3	2	1	—	0	2	1	3	—	0	2	5	4
Kentucky	—	0	2	—	—	—	0	1	1	1	—	0	1	1	5
Mississippi	—	0	1	—	—	—	0	1	1	2	—	0	4	4	3
Tennessee§	—	0	3	9	1	—	0	2	7	2	—	0	2	11	8
<b>W.S. Central</b>	—	1	6	12	3	—	2	7	13	22	—	1	13	39	32
Arkansas§	—	0	0	—	—	—	0	2	—	1	—	0	2	5	5
Louisiana	—	0	1	2	—	—	0	2	11	1	—	0	4	11	5
Oklahoma	—	0	0	—	—	—	0	3	1	2	—	0	4	10	6
Texas§	—	1	6	10	3	—	1	6	1	18	—	0	9	13	16
<b>Mountain</b>	1	0	4	7	4	1	1	6	13	22	1	1	4	33	35
Arizona	—	0	2	—	3	—	0	3	4	6	—	0	3	10	10
Colorado	—	0	0	—	—	—	0	2	4	7	1	0	2	9	12
Idaho§	1	0	2	2	—	—	0	1	—	—	—	0	1	2	1
Montana§	—	0	1	1	—	—	0	1	1	1	—	0	1	1	2
Nevada§	—	0	1	4	—	—	0	1	1	—	—	0	1	3	3
New Mexico§	—	0	1	—	1	—	0	1	—	1	—	0	1	1	1
Utah	—	0	1	—	—	1	0	2	3	7	—	0	2	6	4
Wyoming§	—	0	1	—	—	—	0	0	—	—	—	0	2	1	2
<b>Pacific</b>	2	2	11	43	18	3	4	14	42	62	3	4	12	107	143
Alaska	—	0	1	2	—	—	0	4	2	6	—	0	1	1	2
California	2	2	8	41	18	1	2	6	30	49	3	3	10	77	95
Hawaii	N	0	0	N	N	—	0	2	—	—	—	0	2	2	4
Oregon§	—	0	1	—	—	—	0	3	7	4	—	0	3	13	23
Washington	—	0	3	—	—	2	0	11	3	3	—	0	5	14	19
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	—	—
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	—	—
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	N	0	0	N	N	—	0	1	1	—	—	0	1	4	3
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	—	—

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Data for meningococcal disease, invasive caused by serogroups A, C, Y, &amp; W-135; serogroup B; other serogroup; and unknown serogroup are available in Table I.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Pertussis					Rabies, animal					Rocky Mountain spotted fever				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	73	235	1,015	2,297	4,983	43	91	174	1,200	1,897	10	29	114	202	366
<b>New England</b>	—	15	49	80	553	7	11	25	168	208	—	0	8	—	1
Connecticut	—	2	10	17	25	5	4	14	57	47	—	0	0	—	—
Maine†	—	2	15	32	23	1	2	8	28	29	N	0	0	N	N
Massachusetts	—	0	22	—	363	—	0	7	—	105	—	0	0	—	1
New Hampshire	—	2	21	15	65	1	1	5	13	—	—	0	1	—	—
Rhode Island†	—	0	30	—	21	—	0	3	15	6	—	0	8	—	—
Vermont†	—	1	9	16	56	—	2	10	55	21	—	0	0	—	—
<b>Mid. Atlantic</b>	8	34	160	412	630	—	14	57	121	257	1	1	6	15	22
New Jersey	—	3	12	46	132	—	0	0	—	—	—	0	2	—	6
New York (Upstate)	6	19	150	249	214	—	0	0	—	—	—	0	2	—	—
New York City	—	1	6	—	27	—	1	5	24	2	—	0	3	4	3
Pennsylvania	2	9	22	117	257	—	13	56	97	255	1	1	4	11	13
<b>E.N. Central</b>	13	41	79	533	734	1	2	18	22	18	—	1	6	6	5
Illinois	—	9	23	61	185	—	0	7	3	3	—	0	4	1	2
Indiana	—	2	37	11	60	1	0	2	2	2	—	0	1	1	1
Michigan	1	10	39	106	143	—	0	5	4	13	—	0	1	1	—
Ohio	12	12	56	288	248	—	0	12	13	—	—	0	4	3	2
Wisconsin	—	3	16	67	98	—	0	0	—	—	—	0	1	—	—
<b>W.N. Central</b>	1	17	140	160	572	2	6	20	69	77	1	2	13	27	19
Iowa	—	4	16	48	147	1	0	7	8	10	—	0	1	—	—
Kansas	—	3	14	59	125	—	2	6	41	29	—	0	1	—	—
Minnesota	—	0	120	—	72	—	0	6	4	10	—	0	2	—	1
Missouri	1	4	10	27	155	1	1	6	5	7	1	2	12	27	17
Nebraska†	—	1	4	8	60	—	0	0	—	—	—	0	5	—	1
North Dakota	—	0	9	4	4	—	0	7	6	2	—	0	0	—	—
South Dakota	—	0	4	14	9	—	0	3	5	19	—	0	0	—	—
<b>S. Atlantic</b>	9	17	163	331	360	25	38	62	652	841	3	12	67	104	268
Delaware	—	0	1	2	2	—	0	0	—	—	—	0	3	4	4
District of Columbia	—	0	2	2	3	—	0	0	—	—	—	0	1	1	—
Florida	2	4	18	96	80	—	0	24	47	176	1	0	4	6	6
Georgia	—	0	3	—	8	—	4	16	36	87	—	0	5	2	7
Maryland†	1	2	7	46	66	—	5	12	93	146	2	1	6	16	9
North Carolina	3	0	112	112	71	12	11	21	169	127	—	6	61	58	228
South Carolina†	2	3	11	31	52	11	3	11	46	47	—	1	5	6	5
Virginia†	1	2	17	36	74	—	11	31	235	221	—	2	12	10	9
West Virginia	—	0	19	6	4	2	1	8	26	37	—	0	2	1	—
<b>E.S. Central</b>	—	6	24	75	96	—	4	13	44	83	5	5	27	49	37
Alabama†	—	1	17	23	24	—	1	8	—	25	1	1	9	11	11
Kentucky	—	0	5	1	15	—	0	4	7	5	—	0	1	1	—
Mississippi	—	0	8	8	14	—	0	1	—	3	—	0	1	—	—
Tennessee†	—	3	11	43	43	—	2	8	37	50	4	4	22	37	26
<b>W.S. Central</b>	17	16	150	145	234	2	2	30	29	300	—	1	55	—	7
Arkansas†	17	1	16	36	22	1	0	5	10	14	—	0	47	—	4
Louisiana	—	0	2	6	6	—	0	0	—	—	—	0	1	—	—
Oklahoma	—	0	9	1	2	1	0	7	19	22	—	0	18	—	1
Texas†	—	14	134	102	204	—	0	29	—	264	—	0	6	—	2
<b>Mountain</b>	20	34	75	458	1,187	—	2	28	26	53	—	0	4	1	6
Arizona	8	6	31	117	241	—	1	10	24	44	—	0	2	—	2
Colorado	6	7	20	114	444	—	0	0	—	—	—	0	1	—	1
Idaho†	2	1	7	18	27	—	0	24	—	—	—	0	3	1	—
Montana†	—	1	8	21	43	—	0	2	—	4	—	0	2	—	—
Nevada†	—	0	9	3	29	—	0	1	—	—	—	0	0	—	—
New Mexico†	—	2	8	13	32	—	0	1	—	4	—	0	2	—	2
Utah	4	10	48	160	342	—	0	1	1	1	—	0	0	—	—
Wyoming†	—	1	8	12	29	—	0	2	1	—	—	0	1	—	1
<b>Pacific</b>	5	29	228	103	617	6	4	13	69	60	—	0	1	—	1
Alaska	1	1	8	10	29	1	0	6	27	12	N	0	0	N	N
California	—	22	225	—	346	5	3	12	42	47	—	0	0	—	—
Hawaii	—	0	5	7	50	N	0	0	N	N	N	0	0	N	N
Oregon†	1	2	10	38	56	—	0	4	—	1	—	0	1	—	1
Washington	3	4	46	48	136	—	0	0	—	—	N	0	0	N	N
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	—	—	—	—	—	N	—	—	N	N
Puerto Rico	—	0	1	—	—	1	1	6	19	39	N	0	0	N	N
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Contains data reported through the National Electronic Disease Surveillance System (NEDSS).



TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Salmonellosis					Shiga toxin-producing <i>E. coli</i> (STEC) <sup>†</sup>					Shigellosis				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	286	831	1,340	9,246	10,317	38	75	177	694	706	186	259	535	3,788	3,367
<b>New England</b>	3	17	84	197	862	1	2	16	27	101	—	2	14	26	137
Connecticut	—	0	83	83	503	—	0	7	7	75	—	0	9	9	67
Maine <sup>‡</sup>	3	2	14	35	24	1	0	8	12	3	—	0	5	12	—
Massachusetts	—	0	53	—	294	—	0	9	—	18	—	0	11	—	65
New Hampshire	—	4	26	35	12	—	0	4	4	2	—	0	2	3	—
Rhode Island <sup>§</sup>	—	2	15	28	19	—	0	2	1	1	—	0	3	1	4
Vermont <sup>§</sup>	—	1	6	16	10	—	0	4	3	2	—	0	2	1	1
<b>Mid. Atlantic</b>	41	96	189	1,253	1,257	1	8	61	77	87	3	13	49	155	291
New Jersey	—	19	50	54	243	—	1	16	1	25	—	3	34	13	88
New York (Upstate)	29	28	93	410	262	1	3	14	34	30	1	3	43	35	82
New York City	2	24	45	329	348	—	0	4	7	9	1	5	12	83	89
Pennsylvania	10	30	67	460	404	—	3	47	35	23	1	1	6	24	32
<b>E.N. Central</b>	34	104	199	1,227	1,476	2	9	61	87	111	19	24	72	227	349
Illinois	—	27	61	286	421	—	1	7	9	20	—	10	50	33	116
Indiana	3	15	55	171	164	—	1	8	9	13	1	2	17	23	50
Michigan	4	18	35	219	258	—	1	6	15	22	—	2	5	13	74
Ohio	27	23	56	344	359	2	3	18	39	28	18	4	14	105	52
Wisconsin	—	17	32	207	274	—	2	41	15	28	—	4	14	53	57
<b>W.N. Central</b>	23	47	109	731	676	6	11	45	102	99	35	47	85	807	346
Iowa	2	8	26	109	118	1	2	38	17	20	—	2	14	20	12
Kansas	7	7	16	114	98	1	0	4	7	4	1	1	11	13	29
Minnesota	—	12	60	176	160	4	3	26	44	35	—	5	24	91	27
Missouri	8	15	35	230	188	—	3	13	20	28	34	14	74	659	219
Nebraska <sup>§</sup>	6	3	9	47	66	—	1	11	14	9	—	1	14	7	26
North Dakota	—	0	5	9	6	—	0	0	—	—	—	0	18	4	4
South Dakota	—	3	11	46	40	—	0	5	—	3	—	6	24	13	29
<b>S. Atlantic</b>	75	226	395	2,671	2,446	7	13	32	170	122	78	71	143	1,306	802
Delaware	—	2	10	28	25	—	0	3	6	1	—	0	2	4	—
District of Columbia	2	1	4	14	19	—	0	1	—	—	—	0	5	4	3
Florida	53	95	176	1,158	1,084	2	2	8	48	25	73	36	76	884	352
Georgia	—	34	66	408	350	—	1	7	16	21	—	25	54	318	284
Maryland <sup>§</sup>	5	14	32	188	106	4	3	9	32	11	1	1	10	24	17
North Carolina	—	29	130	395	409	—	2	11	25	27	3	1	14	22	65
South Carolina <sup>§</sup>	10	18	55	227	218	—	0	3	4	3	1	0	10	23	62
Virginia <sup>§</sup>	5	20	58	217	208	1	3	11	38	34	—	2	9	26	19
West Virginia	—	1	31	36	27	—	0	5	1	—	—	0	2	1	—
<b>E.S. Central</b>	17	54	139	626	565	2	4	21	33	49	14	13	84	305	221
Alabama <sup>§</sup>	6	11	70	180	175	—	0	5	8	5	9	6	66	129	47
Kentucky	3	9	23	136	107	—	1	12	9	12	4	2	15	34	117
Mississippi	—	12	85	85	120	—	0	0	—	—	—	1	71	71	27
Tennessee <sup>§</sup>	8	17	32	225	163	2	2	9	16	32	1	4	14	71	30
<b>W.S. Central</b>	20	84	186	379	861	4	3	52	39	32	18	38	192	377	429
Arkansas <sup>§</sup>	9	14	45	115	247	—	0	7	7	2	—	2	10	38	28
Louisiana	—	17	42	120	96	—	0	1	—	—	—	3	24	68	8
Oklahoma	11	9	40	108	72	—	0	17	8	3	2	2	9	21	28
Texas <sup>§</sup>	—	46	107	36	446	4	2	48	24	27	16	31	174	250	365
<b>Mountain</b>	20	53	88	718	695	7	8	36	81	75	10	25	86	229	260
Arizona	5	18	45	267	200	2	1	12	32	19	7	11	34	117	133
Colorado	10	11	30	169	198	2	1	8	11	20	3	3	15	34	43
Idaho <sup>§</sup>	1	3	9	38	44	—	1	8	5	11	—	0	3	4	6
Montana <sup>§</sup>	—	2	10	31	34	—	0	0	—	—	—	0	13	9	1
Nevada <sup>§</sup>	—	4	20	57	47	—	0	5	6	10	—	1	20	11	25
New Mexico <sup>§</sup>	—	5	15	52	65	—	1	5	11	7	—	2	15	31	34
Utah	4	4	14	81	83	3	2	14	16	7	—	1	4	6	15
Wyoming <sup>§</sup>	—	1	4	23	24	—	0	3	—	1	—	0	19	17	3
<b>Pacific</b>	53	116	348	1,444	1,479	8	5	24	78	30	9	33	98	356	532
Alaska	—	1	5	24	31	N	0	0	N	N	—	0	2	6	4
California	45	89	260	1,108	1,108	7	0	6	49	N	7	28	84	283	405
Hawaii	—	4	16	66	79	—	0	3	3	4	—	1	3	12	15
Oregon <sup>§</sup>	—	7	17	85	136	1	1	9	11	18	—	1	6	15	58
Washington	8	11	83	161	125	—	3	22	15	8	2	2	13	40	50
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	N	—	—	N	N	—	—	—	—	—
Puerto Rico	7	14	65	169	97	—	0	0	—	—	—	0	6	5	3
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Includes *E. coli* O157:H7; Shiga toxin-positive, serogroup non-O157; and Shiga toxin-positive, not serogrouped.

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Streptococcal disease, invasive, group A					Streptococcus pneumoniae, invasive disease†				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max		
<b>United States</b>	91	88	220	1,969	2,464	30	26	98	575	531
<b>New England</b>	13	3	21	72	134	1	1	7	12	43
Connecticut	13	0	17	35	50	—	0	6	—	18
Maine <sup>§</sup>	—	0	2	8	8	—	0	2	1	—
Massachusetts	—	0	5	—	65	—	0	3	—	25
New Hampshire	—	1	9	18	3	—	0	4	6	—
Rhode Island <sup>§</sup>	—	0	6	—	4	—	0	3	3	—
Vermont <sup>§</sup>	—	0	2	11	4	1	0	1	2	—
<b>Mid. Atlantic</b>	13	17	39	392	484	2	3	19	51	81
New Jersey	—	2	6	28	87	—	0	4	—	28
New York (Upstate)	7	5	26	146	147	2	2	14	51	49
New York City	—	3	10	87	89	—	0	3	—	4
Pennsylvania	6	6	11	131	161	N	0	0	N	N
<b>E.N. Central</b>	15	14	31	329	538	4	6	14	93	149
Illinois	—	4	10	71	173	—	1	6	9	36
Indiana	2	2	12	48	54	—	0	10	10	20
Michigan	5	3	10	86	112	—	1	4	37	38
Ohio	8	4	14	122	136	4	1	7	35	31
Wisconsin	—	1	6	2	63	—	0	2	2	24
<b>W.N. Central</b>	11	5	32	174	172	3	2	10	50	41
Iowa	—	0	0	—	—	—	0	0	—	—
Kansas	—	1	3	22	35	—	0	3	1	9
Minnesota	6	0	29	82	78	3	1	6	32	18
Missouri	3	2	6	47	31	—	0	3	13	8
Nebraska <sup>§</sup>	2	0	2	10	17	—	0	2	3	4
North Dakota	—	0	2	9	6	—	0	1	1	2
South Dakota	—	0	2	4	5	—	0	0	—	—
<b>S. Atlantic</b>	18	19	42	472	476	5	2	11	111	25
Delaware	1	0	2	3	5	—	0	0	—	—
District of Columbia	—	0	3	7	5	—	0	1	—	—
Florida	5	5	16	112	114	2	0	5	30	—
Georgia	—	4	11	94	123	—	0	5	31	—
Maryland <sup>§</sup>	3	4	8	85	64	1	1	6	34	20
North Carolina	5	0	26	56	61	—	0	0	—	—
South Carolina <sup>§</sup>	1	1	6	43	37	2	0	3	11	—
Virginia <sup>§</sup>	3	2	10	63	58	—	0	1	3	—
West Virginia	—	0	6	9	9	—	0	3	2	5
<b>E.S. Central</b>	3	4	11	84	106	1	0	6	36	9
Alabama <sup>§</sup>	N	0	0	N	N	N	0	0	N	N
Kentucky	1	0	4	19	28	—	0	0	—	—
Mississippi	N	0	0	N	N	—	0	2	2	9
Tennessee <sup>§</sup>	2	3	7	65	78	1	0	6	34	—
<b>W.S. Central</b>	8	6	61	137	180	8	4	39	112	76
Arkansas <sup>§</sup>	—	0	2	12	16	—	0	2	7	13
Louisiana	—	0	2	4	2	—	0	4	24	2
Oklahoma	1	2	5	41	53	5	1	12	27	16
Texas <sup>§</sup>	7	3	56	80	109	3	1	24	54	45
<b>Mountain</b>	7	11	42	261	337	5	4	12	96	104
Arizona	4	5	34	106	186	4	2	7	58	64
Colorado	—	2	9	70	53	1	1	4	23	24
Idaho <sup>§</sup>	—	0	1	6	6	—	0	1	2	1
Montana <sup>§</sup>	N	0	0	N	N	N	0	0	N	N
Nevada <sup>§</sup>	—	0	1	2	1	—	0	1	1	—
New Mexico <sup>§</sup>	1	1	6	24	61	—	0	4	12	15
Utah	2	1	7	50	28	—	0	0	—	—
Wyoming <sup>§</sup>	—	0	1	3	2	—	0	0	—	—
<b>Pacific</b>	3	3	9	48	37	1	0	4	14	3
Alaska	2	0	2	12	N	1	0	2	12	—
California	N	0	0	N	N	N	0	0	N	N
Hawaii	1	2	9	36	37	—	0	2	2	3
Oregon <sup>§</sup>	N	0	0	N	N	N	0	0	N	N
Washington	N	0	0	N	N	N	0	0	N	N
American Samoa	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	N	—	—	N	N
Puerto Rico	—	0	0	—	—	N	0	0	N	N
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Includes cases of invasive pneumococcal disease, in children aged <5 years, caused by *S. pneumoniae*, which is susceptible or for which susceptibility testing is not available (NNDSS event code 11717).

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	<i>Streptococcus pneumoniae</i> , invasive disease, drug resistant <sup>†</sup>										Syphilis, primary and secondary				
	All ages					Age <5 years									
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	25	44	247	1,064	1,174	4	7	32	157	153	99	184	314	2,875	3,225
<b>New England</b>	—	1	12	24	70	—	0	2	4	2	3	4	13	73	69
Connecticut	—	1	5	—	56	—	0	0	—	—	1	0	10	10	16
Maine <sup>‡</sup>	—	0	2	5	3	—	0	1	1	1	—	0	1	1	3
Massachusetts	—	0	0	—	—	—	0	0	—	—	2	2	7	45	37
New Hampshire	—	0	0	—	—	—	0	0	—	—	—	0	2	7	5
Rhode Island <sup>§</sup>	—	0	4	8	3	—	0	1	1	—	—	0	5	9	6
Vermont <sup>§</sup>	—	0	2	11	8	—	0	1	2	1	—	0	1	1	2
<b>Mid. Atlantic</b>	1	3	8	71	64	—	0	5	17	10	28	24	44	564	405
New Jersey	—	0	0	—	—	—	0	0	—	—	—	3	8	57	68
New York (Upstate)	—	1	5	25	17	—	0	4	7	4	3	3	14	44	57
New York City	—	0	0	—	—	—	0	0	—	—	20	15	35	377	193
Pennsylvania	1	2	6	46	47	—	0	2	10	6	5	5	12	86	87
<b>E.N. Central</b>	5	10	40	263	251	1	1	7	31	43	14	15	32	214	320
Illinois	—	0	2	3	9	—	0	1	1	3	6	6	13	60	180
Indiana	—	2	30	59	56	—	0	5	5	12	—	2	5	15	26
Michigan	—	0	3	1	10	—	0	1	—	1	2	2	10	43	32
Ohio	5	5	38	200	176	1	1	5	25	27	5	4	9	75	69
Wisconsin	N	0	0	N	N	—	0	0	—	—	1	1	4	21	13
<b>W.N. Central</b>	—	1	124	85	20	—	0	15	7	1	2	5	14	54	88
Iowa	—	0	0	—	—	—	0	0	—	—	1	0	3	3	7
Kansas	—	0	10	46	—	—	0	2	2	—	—	0	3	8	9
Minnesota	—	0	123	—	—	—	0	15	—	—	—	1	5	21	20
Missouri	—	1	6	32	20	—	0	2	3	1	—	3	9	21	50
Nebraska <sup>§</sup>	—	0	1	2	—	—	0	0	—	—	1	0	2	1	2
North Dakota	—	0	0	—	—	—	0	0	—	—	—	0	1	—	—
South Dakota	—	0	3	5	—	—	0	1	2	—	—	0	3	—	—
<b>S. Atlantic</b>	13	20	54	470	621	2	3	8	72	54	9	41	184	485	703
Delaware	—	0	1	4	—	—	0	1	1	—	—	0	3	3	10
District of Columbia	—	0	2	5	17	—	0	0	—	2	4	2	11	55	41
Florida	12	11	29	276	292	2	2	8	65	51	—	13	23	68	261
Georgia	—	6	17	157	273	—	0	1	—	1	—	6	152	20	79
Maryland <sup>§</sup>	—	0	1	1	—	—	0	0	—	—	1	5	15	110	123
North Carolina	—	0	0	—	—	—	0	0	—	—	3	5	23	124	109
South Carolina <sup>§</sup>	—	0	0	—	—	—	0	0	—	—	—	1	5	31	28
Virginia <sup>§</sup>	N	0	0	N	N	—	0	0	—	—	1	4	17	72	51
West Virginia	1	1	17	27	39	—	0	1	6	—	—	0	2	2	1
<b>E.S. Central</b>	5	2	9	70	89	1	0	3	14	16	11	14	29	267	211
Alabama <sup>§</sup>	N	0	0	N	N	—	0	0	—	—	—	5	17	82	96
Kentucky	1	0	2	14	23	—	0	1	1	3	—	1	7	29	30
Mississippi	—	0	0	—	—	—	0	0	—	—	2	2	10	47	21
Tennessee <sup>§</sup>	4	2	8	56	66	1	0	3	13	13	9	6	12	109	64
<b>W.S. Central</b>	1	1	7	57	9	—	0	2	5	3	23	29	56	535	518
Arkansas <sup>§</sup>	—	0	3	1	4	—	0	0	—	2	—	1	7	37	34
Louisiana	—	1	3	22	5	—	0	1	2	1	7	6	30	116	72
Oklahoma	1	0	6	34	—	—	0	2	3	—	—	1	5	27	29
Texas <sup>§</sup>	—	0	0	—	—	—	0	0	—	—	16	21	31	355	383
<b>Mountain</b>	—	1	5	24	50	—	0	5	7	24	—	8	27	102	177
Arizona	—	0	0	—	—	—	0	0	—	—	—	2	16	29	72
Colorado	—	0	0	—	—	—	0	0	—	—	—	1	5	10	28
Idaho <sup>§</sup>	N	0	0	N	N	—	0	0	—	—	—	0	1	1	2
Montana <sup>§</sup>	—	0	0	—	—	—	0	0	—	—	—	0	1	1	1
Nevada <sup>§</sup>	—	0	3	13	12	—	0	2	4	—	—	2	12	33	46
New Mexico <sup>§</sup>	—	0	0	—	—	—	0	0	—	—	—	1	7	24	24
Utah	—	0	5	8	21	—	0	4	2	16	—	0	2	3	4
Wyoming <sup>§</sup>	—	0	3	3	17	—	0	2	1	8	—	0	1	1	—
<b>Pacific</b>	—	0	0	—	—	—	0	0	—	—	9	37	56	581	734
Alaska	—	0	0	—	—	—	0	0	—	—	—	0	2	4	5
California	N	0	0	N	N	—	0	0	—	—	3	35	53	522	645
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	1	2	9
Oregon <sup>§</sup>	N	0	0	N	N	—	0	0	—	—	2	0	6	7	5
Washington	N	0	0	N	N	—	0	0	—	—	4	2	11	46	70
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	U	—	—	N	N	—	—	—	—	—	—	—	—	—	—
Puerto Rico	N	0	0	N	N	—	0	0	—	—	2	2	11	47	53
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

\* Incidence data for reporting years 2006 and 2007 are provisional.

† Includes cases of invasive pneumococcal disease caused by drug-resistant *S. pneumoniae* (DRSP) (NNDSS event code 11720).

§ Contains data reported through the National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending May 12, 2007, and May 13, 2006 (19th Week)\*

Reporting area	Varicella (chickenpox)					West Nile virus disease <sup>1</sup>					Non-neuroinvasive <sup>2</sup>				
	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006	Current week	Previous 52 weeks		Cum 2007	Cum 2006
		Med	Max				Med	Max				Med	Max		
<b>United States</b>	814	798	1,547	17,325	21,842	—	0	178	—	9	—	1	399	—	5
<b>New England</b>	8	37	121	290	1,382	—	0	3	—	—	—	0	2	—	—
Connecticut	—	12	76	1	802	—	0	3	—	—	—	0	1	—	—
Maine <sup>3</sup>	—	1	17	—	125	—	0	0	—	—	—	0	0	—	—
Massachusetts	—	0	1	—	92	—	0	1	—	—	—	0	1	—	—
New Hampshire	4	6	43	105	57	—	0	0	—	—	—	0	0	—	—
Rhode Island <sup>4</sup>	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Vermont <sup>5</sup>	4	10	66	184	306	—	0	0	—	—	—	0	0	—	—
<b>Mid. Atlantic</b>	98	105	193	2,171	2,404	—	0	11	—	—	—	0	4	—	—
New Jersey	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
New York (Upstate)	N	0	0	N	N	—	0	5	—	—	—	0	1	—	—
New York City	—	0	0	—	—	—	0	4	—	—	—	0	2	—	—
Pennsylvania	98	105	193	2,171	2,404	—	0	2	—	—	—	0	1	—	—
<b>E.N. Central</b>	183	228	568	5,075	7,995	—	0	43	—	—	—	0	33	—	—
Illinois	—	1	11	61	49	—	0	23	—	—	—	0	23	—	—
Indiana	—	0	0	—	—	—	0	7	—	—	—	0	12	—	—
Michigan	63	86	258	1,980	2,336	—	0	11	—	—	—	0	2	—	—
Ohio	120	122	449	2,617	4,996	—	0	11	—	—	—	0	3	—	—
Wisconsin	—	15	57	417	614	—	0	2	—	—	—	0	2	—	—
<b>W.N. Central</b>	35	30	136	965	1,006	—	0	36	—	—	—	0	79	—	1
Iowa	N	0	0	N	N	—	0	3	—	—	—	0	4	—	1
Kansas	6	8	52	374	184	—	0	3	—	—	—	0	3	—	—
Minnesota	—	0	0	—	—	—	0	6	—	—	—	0	7	—	—
Missouri	22	15	78	457	773	—	0	14	—	—	—	0	2	—	—
Nebraska <sup>6</sup>	N	0	0	N	N	—	0	9	—	—	—	0	38	—	—
North Dakota	—	0	60	84	18	—	0	5	—	—	—	0	28	—	—
South Dakota	7	1	15	50	31	—	0	7	—	—	—	0	22	—	—
<b>S. Atlantic</b>	76	85	211	1,936	2,187	—	0	2	—	—	—	0	7	—	—
Delaware	—	1	6	12	40	—	0	0	—	—	—	0	0	—	—
District of Columbia	—	0	8	8	14	—	0	0	—	—	—	0	1	—	—
Florida	30	0	43	547	N	—	0	1	—	—	—	0	0	—	—
Georgia	N	0	0	N	N	—	0	1	—	—	—	0	4	—	—
Maryland <sup>4</sup>	N	0	0	N	N	—	0	2	—	—	—	0	2	—	—
North Carolina	—	0	0	—	—	—	0	1	—	—	—	0	0	—	—
South Carolina <sup>4</sup>	30	20	72	564	637	—	0	1	—	—	—	0	0	—	—
Virginia <sup>4</sup>	—	19	177	248	722	—	0	0	—	—	—	0	2	—	—
West Virginia	16	25	52	557	774	—	0	1	—	—	—	0	0	—	—
<b>E.S. Central</b>	10	6	43	207	45	—	0	15	—	3	—	0	16	—	—
Alabama <sup>4</sup>	10	6	43	205	45	—	0	2	—	—	—	0	0	—	—
Kentucky	N	0	0	N	N	—	0	2	—	—	—	0	1	—	—
Mississippi	—	0	2	2	—	—	0	10	—	3	—	0	16	—	—
Tennessee <sup>4</sup>	N	0	0	N	N	—	0	4	—	—	—	0	2	—	—
<b>W.S. Central</b>	303	200	970	5,331	5,278	—	0	58	—	4	—	0	26	—	2
Arkansas <sup>4</sup>	—	9	96	172	387	—	0	4	—	—	—	0	2	—	—
Louisiana	—	1	11	46	42	—	0	13	—	—	—	0	9	—	1
Oklahoma	—	0	0	—	—	—	0	6	—	—	—	0	4	—	—
Texas <sup>4</sup>	303	172	873	5,113	4,849	—	0	38	—	4	—	0	16	—	1
<b>Mountain</b>	100	52	108	1,329	1,545	—	0	61	—	2	—	0	228	—	2
Arizona	—	0	0	—	—	—	0	9	—	—	—	0	15	—	—
Colorado	23	21	51	462	795	—	0	10	—	2	—	0	51	—	1
Idaho <sup>4</sup>	N	0	0	N	N	—	0	30	—	—	—	0	157	—	1
Montana <sup>4</sup>	—	0	26	174	N	—	0	3	—	—	—	0	8	—	—
Nevada <sup>4</sup>	—	0	3	1	5	—	0	9	—	—	—	0	16	—	—
New Mexico <sup>4</sup>	4	4	20	172	273	—	0	1	—	—	—	0	1	—	—
Utah	73	17	65	507	459	—	0	8	—	—	—	0	17	—	—
Wyoming <sup>4</sup>	—	0	11	13	13	—	0	7	—	—	—	0	10	—	—
<b>Pacific</b>	1	0	9	21	—	—	0	15	—	—	—	0	51	—	—
Alaska	1	0	9	21	N	—	0	0	—	—	—	0	0	—	—
California	—	0	0	—	N	—	0	15	—	—	—	0	37	—	—
Hawaii	—	0	0	—	—	—	0	0	—	—	—	0	0	—	—
Oregon <sup>4</sup>	N	0	0	N	N	—	0	2	—	—	—	0	14	—	—
Washington	N	0	0	N	N	—	0	0	—	—	—	0	2	—	—
American Samoa	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U
C.N.M.I.	U	—	—	U	U	U	—	—	U	U	U	—	—	U	U
Guam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerto Rico	20	12	24	227	217	—	0	0	—	—	—	0	0	—	—
U.S. Virgin Islands	U	0	0	U	U	U	0	0	U	U	U	0	0	U	U

C.N.M.I.: Commonwealth of Northern Mariana Islands.

U: Unavailable. —: No reported cases. N: Not notifiable. Cum: Cumulative year-to-date counts. Med: Median. Max: Maximum.

<sup>1</sup> Incidence data for reporting years 2006 and 2007 are provisional.<sup>2</sup> Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Zoonotic, Vector-Borne, and Enteric Diseases (ArboNET Surveillance). Data for California serogroup, eastern equine, Powassan, St. Louis, and western equine diseases are available in Table I.<sup>3</sup> Not notifiable in all states. Data from states where the condition is not notifiable are excluded from this table, except in 2007 for the domestic arboviral diseases and influenza-associated pediatric mortality, and in 2003 for SARS-CoV. Reporting exceptions are available at <http://www.cdc.gov/epo/dphsi/phs/infdis.htm>.<sup>4</sup> Contains data reported through the National Electronic Disease Surveillance System (NEDSS).



TABLE III. Deaths in 122 U.S. cities,\* week ending May 12, 2007 (19th Week)

All causes, by age (years)								All causes, by age (years)								
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I <sup>†</sup> Total	
<b>New England</b>	483	323	98	31	22	9	46	<b>S. Atlantic</b>	1,151	717	265	115	38	16	86	
Boston, MA	135	80	30	9	12	4	9	Atlanta, GA	U	U	U	U	U	U	U	
Bridgeport, CT	U	U	U	U	U	U	U	Baltimore, MD	151	81	38	23	8	1	21	
Cambridge, MA	18	16	1	1	—	—	3	Charlotte, NC	133	84	31	13	2	3	17	
Fall River, MA	26	21	4	1	—	—	4	Jacksonville, FL	232	147	61	15	6	3	11	
Hartford, CT	53	33	13	2	2	3	7	Miami, FL	89	43	25	16	5	—	3	
Lowell, MA	23	18	4	1	—	—	3	Norfolk, VA	53	33	11	6	1	2	—	
Lynn, MA	16	11	3	2	—	—	2	Richmond, VA	43	24	11	7	1	—	—	
New Bedford, MA	28	21	4	3	—	—	5	Savannah, GA	79	56	14	3	4	2	8	
New Haven, CT	39	18	13	5	2	1	3	St. Petersburg, FL	46	30	9	3	3	1	2	
Providence, RI	21	15	3	2	1	—	—	Tampa, FL	186	128	35	16	5	2	19	
Somerville, MA	7	7	—	—	—	—	1	Washington, D.C.	123	81	24	13	3	2	3	
Springfield, MA	42	26	8	4	3	1	3	Wilmington, DE	16	10	6	—	—	—	2	
Waterbury, CT	22	15	5	1	1	—	6	<b>E.S. Central</b>	869	561	204	49	24	30	60	
Worcester, MA	53	42	10	—	1	—	—	Birmingham, AL	208	134	48	5	7	13	10	
<b>Mid. Atlantic</b>	2,127	1,464	479	108	46	30	126	Chattanooga, TN	45	29	10	2	2	2	1	
Albany, NY	56	42	12	1	—	1	2	Knoxville, TN	120	74	37	6	2	1	6	
Allentown, PA	46	38	5	2	1	—	4	Lexington, KY	60	44	10	4	2	—	6	
Buffalo, NY	83	53	24	3	—	3	6	Memphis, TN	184	120	41	10	9	4	12	
Camden, NJ	16	12	1	3	—	—	—	Mobile, AL	67	41	13	8	—	5	7	
Elizabeth, NJ	13	9	3	—	1	—	1	Montgomery, AL	50	34	12	1	1	2	5	
Erie, PA	58	44	8	3	—	3	3	Nashville, TN	135	85	33	13	1	3	13	
Jersey City, NJ	19	12	2	2	2	1	2	<b>W.S. Central</b>	1,515	970	354	119	29	43	67	
New York City, NY	997	695	221	48	20	13	50	Austin, TX	94	63	19	9	1	2	4	
Newark, NJ	53	23	20	5	1	4	3	Baton Rouge, LA	64	38	12	7	2	5	—	
Paterson, NJ	17	6	7	1	2	1	1	Corpus Christi, TX	58	40	10	3	2	3	5	
Philadelphia, PA	378	239	98	26	12	3	20	Dallas, TX	199	105	67	18	8	1	13	
Pittsburgh, PA <sup>‡</sup>	32	20	9	1	2	—	4	El Paso, TX	79	49	20	7	1	2	5	
Reading, PA	43	30	12	1	—	—	3	Fort Worth, TX	121	82	32	2	—	5	6	
Rochester, NY	137	105	25	6	—	1	12	Houston, TX	370	223	81	42	10	14	9	
Schenectady, NY	25	19	5	1	—	—	—	Little Rock, AR	91	64	21	2	—	4	1	
Scranton, PA	39	30	7	—	2	—	4	New Orleans, LA <sup>§</sup>	U	U	U	U	U	U	U	
Syracuse, NY	68	55	10	1	2	—	10	San Antonio, TX	228	149	54	18	2	5	11	
Trenton, NJ	21	10	6	4	1	—	—	Shreveport, LA	91	66	16	6	1	2	6	
Utica, NY	12	10	2	—	—	—	1	Tulsa, OK	120	91	22	5	2	—	7	
Yonkers, NY	14	12	2	—	—	—	—	<b>Mountain</b>	1,225	805	259	92	35	34	63	
<b>E.N. Central</b>	1,993	1,311	467	113	53	49	138	Albuquerque, NM	137	93	32	6	6	—	5	
Akron, OH	36	26	9	—	1	—	3	Boise, ID	53	38	11	1	1	2	3	
Canton, OH	36	27	9	—	—	—	—	Colorado Springs, CO	70	40	16	9	3	2	4	
Chicago, IL	272	150	80	23	12	7	20	Denver, CO	95	58	17	10	4	6	7	
Cincinnati, OH	85	58	18	3	3	3	11	Las Vegas, NV	369	233	84	33	11	8	14	
Cleveland, OH	225	167	44	10	3	1	11	Ogden, UT	42	34	7	1	—	—	2	
Columbus, OH	186	106	47	18	8	7	17	Phoenix, AZ	152	93	34	13	4	8	8	
Dayton, OH	139	100	23	8	4	4	8	Pueblo, CO	39	28	7	2	2	—	4	
Detroit, MI	175	96	45	18	3	13	14	Salt Lake City, UT	113	65	28	10	3	7	11	
Evansville, IN	55	44	5	3	2	1	3	Tucson, AZ	155	123	23	7	1	1	5	
Fort Wayne, IN	64	49	8	4	2	1	2	<b>Pacific</b>	1,272	902	244	69	26	29	95	
Gary, IN	12	4	7	1	—	—	—	Berkeley, CA	11	6	3	1	—	1	1	
Grand Rapids, MI	55	39	11	1	2	2	6	Fresno, CA	92	75	8	6	1	2	7	
Indianapolis, IN	189	112	53	12	6	6	12	Glendale, CA	U	U	U	U	U	U	U	
Lansing, MI	52	40	10	—	—	2	6	Honolulu, HI	62	46	13	2	1	—	8	
Milwaukee, WI	93	64	29	—	—	—	11	Long Beach, CA	64	44	16	2	2	—	9	
Peoria, IL	54	47	5	1	1	—	3	Los Angeles, CA	U	U	U	U	U	U	U	
Rockford, IL	72	47	18	4	2	1	2	Pasadena, CA	17	11	3	1	1	1	1	
South Bend, IN	48	34	9	4	1	—	1	Portland, OR	131	92	29	4	3	3	11	
Toledo, OH	89	54	30	2	2	1	6	Sacramento, CA	193	142	32	9	6	4	11	
Youngstown, OH	56	47	7	1	1	—	2	San Diego, CA	147	95	32	11	3	4	12	
<b>W.N. Central</b>	584	383	141	40	8	12	35	San Francisco, CA	118	89	21	4	3	1	8	
Des Moines, IA	38	25	11	1	—	1	6	San Jose, CA	159	114	30	8	—	7	13	
Duluth, MN	22	17	3	2	—	—	—	Santa Cruz, CA	30	21	6	2	—	1	3	
Kansas City, KS	24	12	11	—	1	—	—	Seattle, WA	111	72	20	12	4	3	4	
Kansas City, MO	92	59	24	7	—	2	1	Spokane, WA	47	32	10	4	1	—	4	
Lincoln, NE	42	30	6	5	1	—	5	Tacoma, WA	90	63	21	3	1	2	3	
Minneapolis, MN	58	34	15	6	—	3	7	<b>Total</b>	11,219**	7,436	2,511	736	281	252	716	
Omaha, NE	104	72	23	5	2	2	6									
St. Louis, MO	80	44	25	5	3	3	3									
St. Paul, MN	46	34	8	4	—	—	4									
Wichita, KS	78	56	15	5	1	1	3									

U: Unavailable. —: No reported cases.

\* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

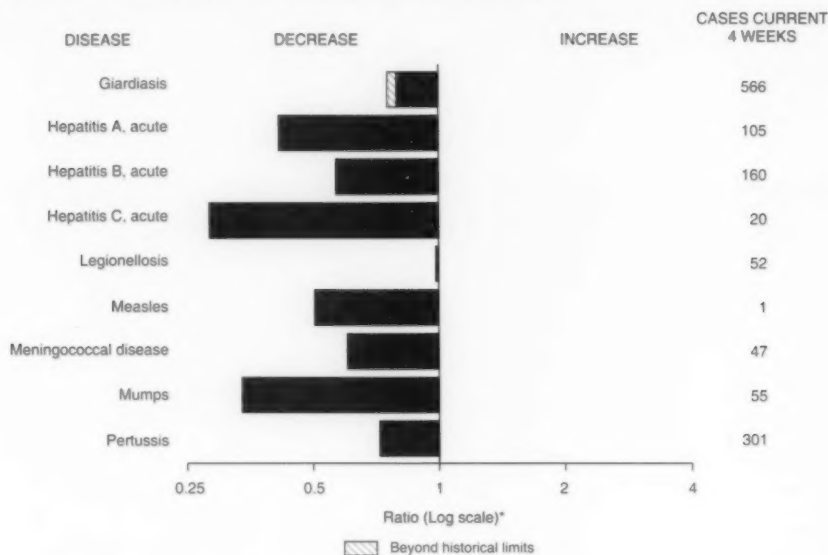
† Pneumonia and influenza.

‡ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

§ Because of Hurricane Katrina, weekly reporting of deaths has been temporarily disrupted.

\*\* Total includes unknown ages.

**FIGURE 1. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 12, 2007, with historical data**



\* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

**Notifiable Disease Data Team and 122 Cities Mortality Data Team**

Patsy A. Hall

Deborah A. Adams

Willie J. Anderson

Lenée Blanton

Rosaline Dhara

Vernitta Love

Pearl C. Sharp



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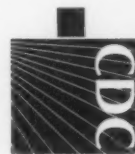
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☆U.S. Government Printing Office: 2007-623-038/41026 Region IV ISSN: 0149-2195



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PO BOX 1346  
ANN ARBOR, MI 48106-1346

FIRST-CLASS MAIL  
POSTAGE & FEES PAID  
PHS/CDC  
Permit No. G-284



